

# ECONOMIC PROFILE: SAN JOAQUIN VALLEY REGION



Prepared for the



DECEMBER 2007

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## **California Economic Strategy Panel**

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## PREFACE

The California Economic Strategy Panel (Panel) continuously examines changes in the state's economic base and industry sectors to develop a statewide vision and strategic initiatives to guide public policy decisions for economic growth and competitiveness (see [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/)). The fifteen-member Panel is comprised of eight appointees by the Governor, two appointees each by the President pro Tempore and the Speaker and one each by the Senate and Assembly Minority Floor Leaders. The Secretary of the California Labor & Workforce Development Agency serves as the Chair.

The Panel first identified California's economy as an economy of regions in 1996. At that time, the Panel also adopted a new way of looking at industry sectors and how they function and grow as industry clusters. These new ways of looking at the economy became the basis for the analytical work completed then, and have provided a foundation for the Panel's work since that time.

The California Regional Economies Project is currently the lead research mechanism for the Panel to identify economic policy issues. The project provides the state's economic and workforce development systems with data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and investment decisions and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the San Joaquin Valley Region from 2001 to 2005. The statewide and eight other regional economic base reports are also available at [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/). Previous economic base reports examined the 1990-2002 and the 2001-2004 periods. The earlier reports were the first economic base reports for the regional economies as they are defined today. The Panel's initial work, from 1994-1996, resulted in identification of six regions and provided regional economic base analyses; however, those regions had been significantly redefined by 1998, making comparisons to the early analyses impractical.

The source of the data used for these reports is the official employment and wage information reported by employers to the State. While a variety of other sources provide similar information, they may not capture the official numbers that employers report, or may not include input from all employers. This data source is the most comprehensive and accurate source of information direct from employers, and is therefore the best to use for public policy-making, planning and program administration.

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The Panel has taken steps to institutionalize the analysis and preparation of these economic base reports within State government so that this analysis may be provided on a yearly basis. Also, steps have been taken to leverage the body of knowledge that now exists around the study of industry clusters, gained through the California Regional Economies Project.

First, a non-confidential version of the data series, the *California Regional Economies Employment Series*, has been made available online by the California Employment Development Department's Labor Market Information Division (LMID) so that regional organizations may access this data at the county level. Second, a step-by-step guide, the *Industry Clusters of Opportunity User Guide*, is available online so that regional organizations can conduct industry cluster studies and work with business and industry to test and apply the findings. With this information, regional organizations may conduct their own economic base and industry cluster analyses down to the county level, and they may combine county data to create their own sub-regional study areas. Training workshops are being held to teach the methodology and processes outlined in the *Industry Clusters of Opportunity User Guide* to representatives from Local Workforce Investment Boards, economic development organizations, the Employment Training Panel, LMID, educational institutions and programs including Community Colleges and Regional Occupational Programs, and other local jurisdictions.

The statewide and regional economic base reports, the *Industry Clusters of Opportunity User Guide* and other studies are available on the Panel's website at [www.labor.ca.gov/panel/espcrep.htm](http://www.labor.ca.gov/panel/espcrep.htm).

The *California Regional Economies Employment Series* is available online at [www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173](http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173).

The California Regional Economies Project is sponsored by the California Labor & Workforce Development Agency, California Employment Development Department, California Workforce Investment Board and the California Community Colleges Chancellor's Office.

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## INTRODUCTION

The California Regional Economies Project provides data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and investment decisions, and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the San Joaquin Valley Region's economy from 2001 to 2005. The previous economic base reports examined the 1990-2002 and the 2001-2004 periods. The statewide and eight other regional economic base reports are also available at [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/).

### Data Sources

The Quarterly Census of Employment and Wages (QCEW) data is the source for the private industry data, which uses the North American Industry Classification System (NAICS) coding system. The Current Employment Statistics (CES) data is the source for all levels of government employment data. The CES data does not offer wage information, so the government wage information in this report was taken from the federal Bureau of Labor Statistics (BLS) QCEW non-confidential data available online. A more detailed explanation of the data sources is available in the statewide report.

### Industry Clusters versus Sectors

An industry sector is a group of firms that are doing the same type of work, making the same type of products, or providing the same types of services. Examples include manufacturing, construction, retail trade and health care.

An industry cluster is a group of interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. They are also geographically concentrated. When identifying "industry clusters of opportunity," the Project adds additional considerations that focus on employment opportunities for regional residents.

### Definition of the Economic Base Industries

Economists divide industries into two groups; export-oriented and local-serving (also referred to as population-driven). Export-oriented industries are industries that sell a large portion of their goods and services to people and businesses in markets outside of the region, creating capital (bringing capital into) the region. Local-serving industries are industries that sell their

goods and services to people and businesses in markets within the region. These industries do not typically create new capital for the region, but recirculate it within the region.

In the economic base reports completed in 2004, the two principal researchers who provided the analyses did not agree on a common definition of an area's economic base. One favored the traditional approach, while the researcher analyzing the rural regions felt that there were key local-serving industries that were critical to these rural regions and should be included in the economic base.

For the economic base reports completed in 2006, we chose to include some industries in our definition of the economic base that are not traditionally included. We acknowledged that this use of the term, "economic base," conflicted with the standard definition, and that we chose to redefine it for the purpose of those reports. We promised to revisit this issue, and have done so for the current reports.

The current reports begin with an overview of the economy and all major industry sectors. Next, we provide an analysis of the economic base. In order to recognize and reconcile past researchers' differences regarding the definition of the economic base, we have chosen to use the traditional definition of economic base for this section (as found in the economic base reports produced in 2004 for the urban regions) and to then follow it with a separate section that provides an in-depth analysis of other key industries and industry clusters that are also important to the region's economy – drawing from the reasoning behind the expanded definitions of the economic base used in some of the past reports. We do this in order to incorporate the traditional approach in a meaningful way for those who prefer that approach, while recognizing the importance of seeking alternative ways to view the economy.

A detailed discussion of the definition of the economic base and the differences between the previous and current reports is available in the statewide report.

### **Manufacturing**

Manufacturing is a cornerstone of the economy. Changes in employment within Manufacturing are closely monitored. Therefore, it is important to note that the employment counts reported for Manufacturing may be impacted by two key factors.

First, some Manufacturing firms may report all of their employment in a given location as manufacturing, while not all of the work actually being done at that location is manufacturing. (This may be true for other industries, as well.) Firms are encouraged to report employment under multiple industry codes in order to most accurately capture the type of employment; however, this is somewhat at the firm's discretion.

Second, there is a growing percentage of manufacturing jobs being filled by the Employment Services industry,\* suggesting that Manufacturing firms are relying more heavily on the use of temporary workers. These workers are reported as employees of the Employment Services firm, thus affecting the count of manufacturing jobs.

\* US Department of Labor, Bureau of Labor Statistics, *Career Guide to Industries: Employment Services*

## THE SAN JOAQUIN VALLEY REGION



The San Joaquin Valley Region includes eight counties — Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare. It is home to 10% of California's population and 9% of its labor force. The region's unemployment rate in 2005 was 8.6%. This region had the highest unemployment rate of the nine regions, well above the state average of 5.4%.

From 1990 to 2003, the San Joaquin Valley Region experienced job growth of 25%, as reported in the first economic base report. Since the recent recession, from 2001 to 2005, job growth has increased by 7.2%. During this time, private industry jobs increased by 8.2% and All Government<sup>1</sup> jobs increased by 3.3%. Also during this time, the region's population grew by 10% and per capital income grew by 13%.

The San Joaquin Valley Region's private industry and government sectors employed just over 1.3 million in 2005; about 1,048,000 of these jobs were in private industry and 255,600 were in All Government. The private industry sector was composed of over 91,000 businesses, reporting an average annual wage of \$30,432. This was up almost 16% from the 2001 average of \$26,247, but the region's average is still significantly lower than the statewide average of \$45,686.

**Figure 1 Characteristics of the San Joaquin Valley Region**

<b>Characteristics of the San Joaquin Valley Region</b>			
(Numbers are in thousands, except for dollar amounts)			
	<b>San Joaquin Valley</b>	<b>California</b>	<b>S. J. Valley as % of CA</b>
Population (2005)	3,745	36,154	10.4%
Labor Force (2005)	1,658	17,696	9%
Unemployment Rate (2005)	8.6%	5.4%	159%
Private Sector Jobs (2005)	1,048	12,828	8.2%
Manufacturing Jobs* (2005)	112	1,498.7	7.5%
Per Capita Income (2005)	\$ 25,119	\$ 36,936	68%
Average Wage (2005)	\$ 30,432	\$ 45,686	67%

Source: Jobs, Labor Force, Unemployment Rate and Average Wage – California Employment Development Department, Labor Market Information Division; Population and Per Capita Income – U.S. Bureau of Economic Analysis

\* Manufacturing jobs reported here are traditional production jobs (NAICS 31-33).

<sup>1</sup> Government jobs include education, law enforcement, firefighting, defense and public services jobs for all levels of government (federal, state and local).



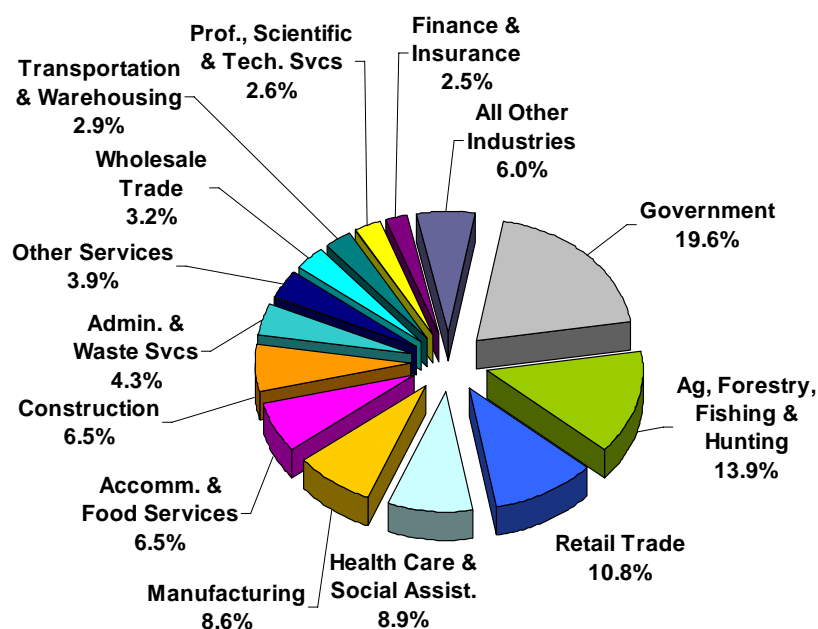
## Employment Size

All Government provides the largest number of the region's jobs, with 255,600 jobs in 2005, or 19.6% of all jobs in the region. Within All Government, the largest sub-sector is Local Government Education (90,800 jobs).

The second largest sector is Agriculture, Forestry, Fishing & Hunting, providing 181,300 jobs, or 13.9% of all jobs in the region. The jobs within this sector are primarily related to Agriculture. The largest sub-sectors are Support Activities for Agriculture & Forestry (93,500 jobs) and Crop Production (64,900 jobs).

The third largest sector is Retail Trade (10.8%), followed by Health Care & Social Assistance (8.9%), Manufacturing (8.6%) and Accommodation & Food Service (6.5%). **Figure 2** shows employment distribution across the major industry sectors.

**Figure 2 Employment Distribution**

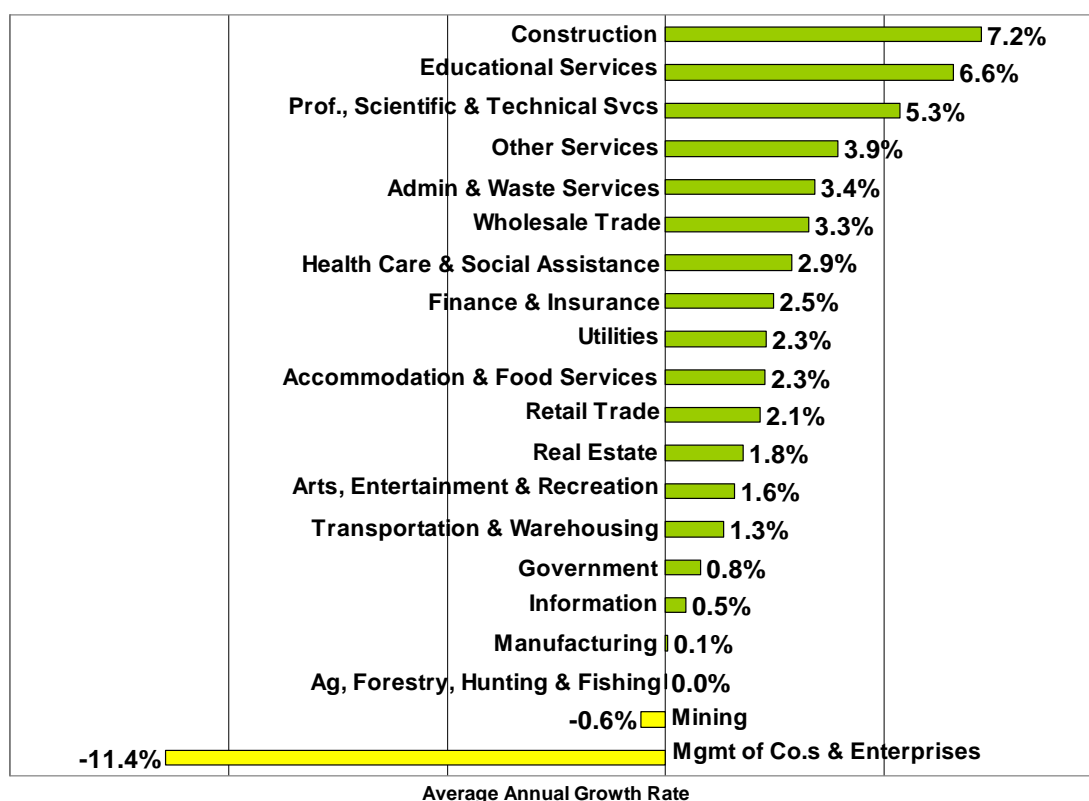


## Growth Rate

Construction reported the strongest employment growth from 2001 to 2005, at just over 32%, for an average annual growth rate (AAGR) of 7.2%. Within this sector, the Specialty Trades Contractors sub-sector led this growth, followed by Construction of Buildings.

The second greatest job growth was reported by Educational Services, which grew 29% from 2001 to 2005, for an AAGR of 6.6%. This was followed by Professional, Scientific & Technical Services (up 23.1%; 5.3% AAGR) and Administration & Waste Services (up 14.3%; 3.4% AAGR). Growth for all industry sectors may be found in **Figure 3**.

**Figure 3 Employment Growth 2001 - 2005**



## Concentration or Competitive Advantage

The concentration of jobs in an industry in a region, compared to the concentration at the state level, is another indicator of an industry's importance to the region's economy. A concentration level higher than 1.0 may indicate that the region has a competitive advantage in that industry; it may also indicate that the goods and services being produced are being consumed outside of the region. The concentration is also referred to as the Location Quotient (LQ).

In the San Joaquin Valley Region, the Agriculture, Forestry, Fishing & Hunting sector reported the highest concentration in 2005, at 5.6. The region has a very strong competitive advantage in this industry. Other industries with a concentration above the state level include Mining (4.8), All Government (1.2), Construction (1.1), Transportation & Warehousing (1.1) and Utilities (1.1). The concentration for the ten largest industries is displayed in **Figure 4**.

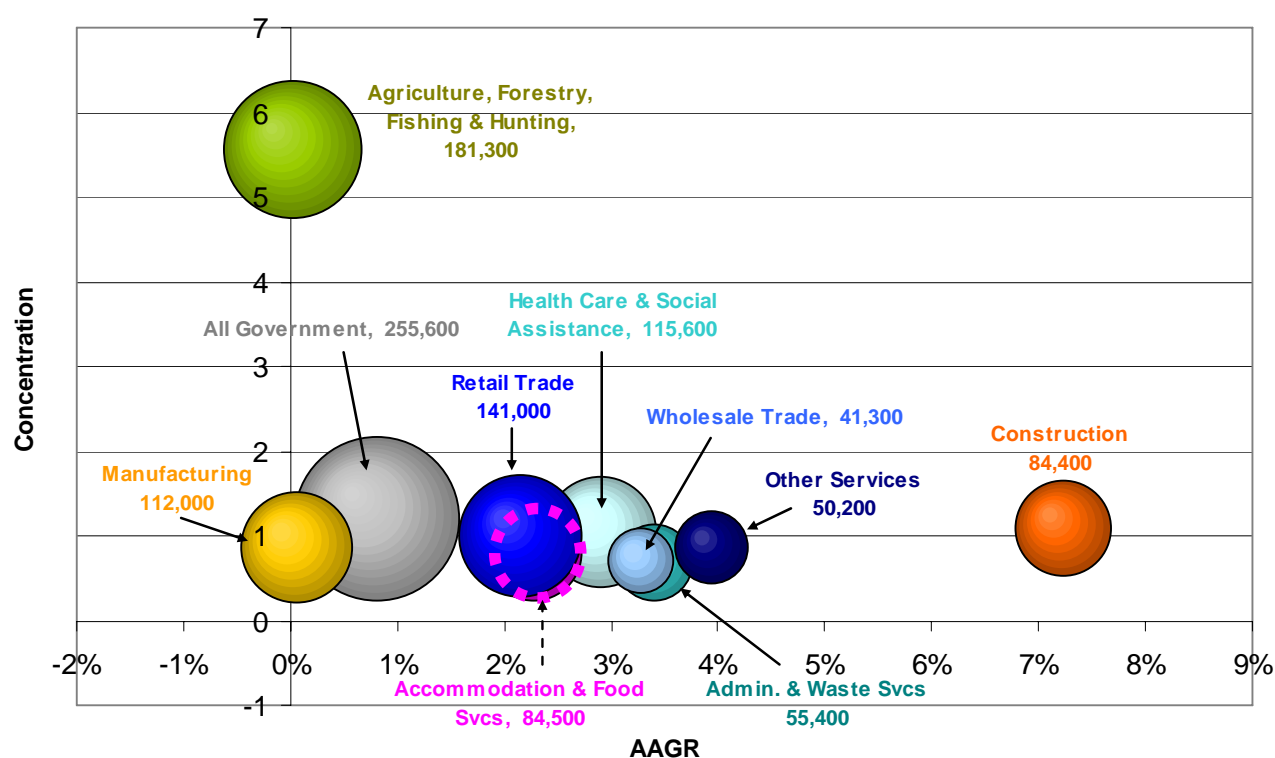
## Comparing Size, Growth and Concentration

The bubble chart in **Figure 4** shows employment change from 2001 to 2005 for the region's ten largest industry sectors (based on employment size). This type of chart displays three important criteria in one chart – employment size, growth rate and concentration.

Interpreting the chart:

- The size of the bubble represents the employment size of the industry.
- The position from left to right indicates the employment change – to the left of zero means job losses, and to the right means job growth. The average annual growth rate (AAGR) is graphed as a percentage.
- The vertical position indicates the concentration of the industry in the region; the higher the bubble, the greater the concentration. A concentration greater than 1.0 means the region has a higher concentration of jobs in that industry than is found statewide. Industries highly concentrated in a region are important to the region, even if they are not the largest in employment size.

Figure 4 Size, Growth and Concentration of the Ten Largest Industries



For the ten largest industry sectors:

- All Government was the largest sector, followed by Agriculture, Forestry, Fishing & Hunting.
- Agriculture, Forestry, Fishing & Hunting (primarily composed of Agriculture-related jobs) shows the highest concentration and is the second largest in employment size; however, growth was less than 1% from 2001 to 2005. The other nine industries displayed have concentrations very close to the statewide level.
- Construction reported the highest percentage of job growth, followed by Other Services and Administrative & Waste Services.
- All ten sectors reported job growth.

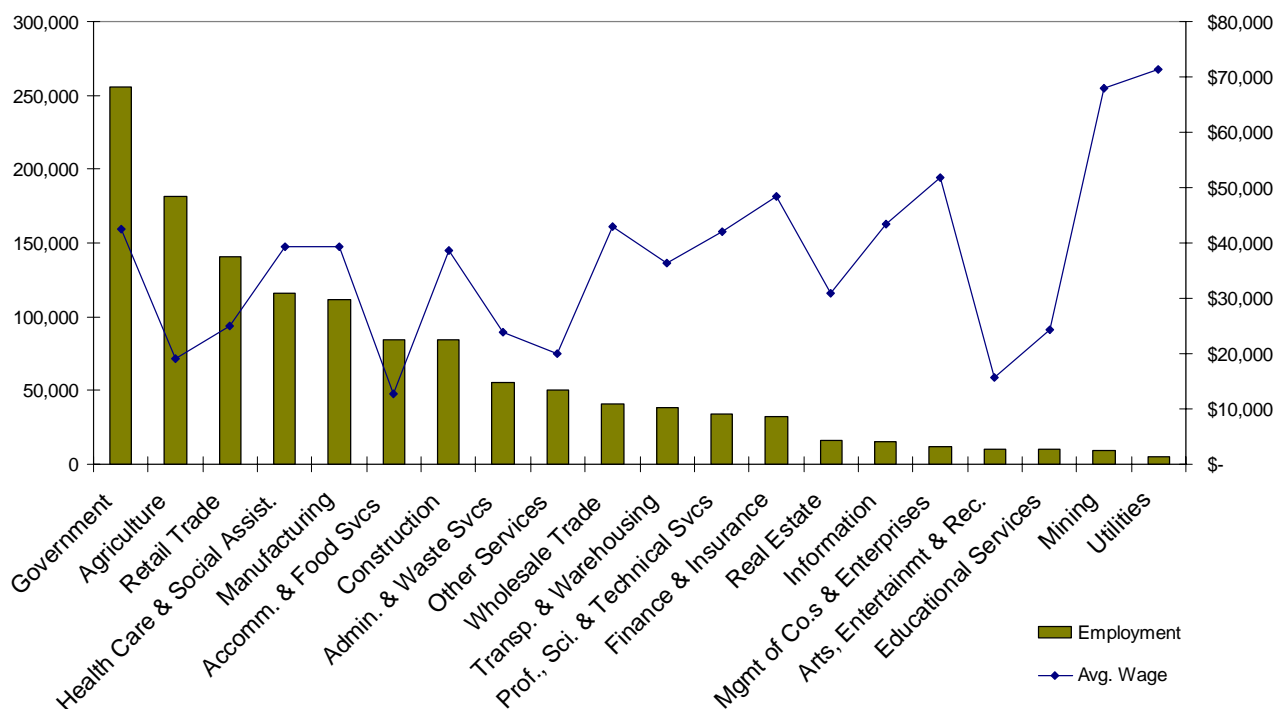
## Average Wages

Another important factor to consider is how well an industry pays. In 2005, the average annual wage across all private industries in the San Joaquin Valley Region was \$30,432, compared to the statewide average of \$45,686. The San Joaquin Valley Region ranks sixth among the nine economic regions.

The highest average annual wage of \$71,347 was reported by Utilities, and the lowest, \$12,669, was reported by Accommodation & Food Services. The average annual wage in the government sector – the region's largest employer – was \$42,491.

The following graph compares 2005 employment with the average annual wages reported by each industry sector.

**Figure 5 2005 Employment and Average Annual Wages**

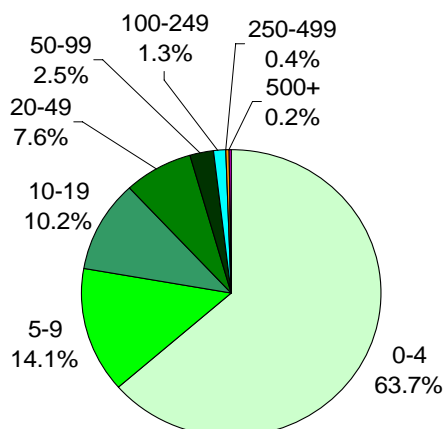


## Size of Business

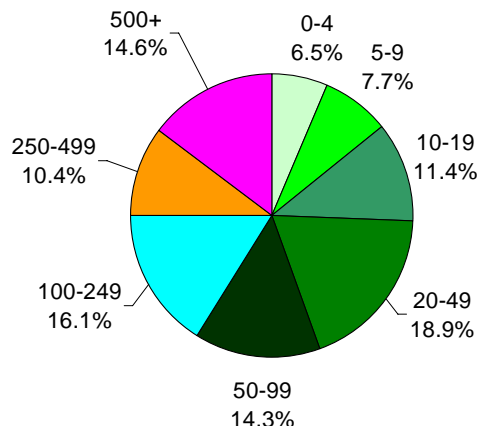
From 2001 to 2005, the percentage of businesses with fewer than 100 employees remained constant within the region at about 98%. These businesses provide almost 59% of the region's total employment. In contrast, only about 2% of all businesses in the San Joaquin Valley Region employ 100 or more workers, and these businesses provide just over 41% of the region's private sector jobs.

**Figure 6 Distribution of Firms and Jobs by Size of Business in 2005**

2005 Distribution of Firms by Size of Business Category



2005 Employment by Size of Business Category



Businesses with fewer than 50 employees provided 44.5% of all private industry jobs in 2005. Looking at the smallest firms, those with fewer than 10 employees provided just over 14% of all private industry jobs. Other Services reported the highest percentage of businesses with fewer than 100 employees, at 99.9%, followed by Real Estate & Rental & Leasing, at 99.7%, and Professional, Scientific & Technical Services, at 99.4%. Mining reported the lowest percentage, at 87.8%.

**Figure 7** provides a summary of economic facts for all of the industry sectors:

**Figure 7 Industry Composition in 2005**

NAICS	Major Industry Sector	% of Employment	Avg. Annual Growth Rate	2005 LQ*	Avg. Annual Wage	Firms with less than 100 employees	Firms with less than 50 employees
11	Ag, Forestry, Fishing & Hunting	13.9%	0.02%	5.6	\$ 19,019	95.2%	91.2%
21	Mining	0.7%	-0.6%	4.8	\$ 67,970	87.8%	79.1%
22	Utilities	0.4%	2.3%	1.1	\$ 71,347	96.2%	91.3%
23	Construction	6.5%	7.2%	1.1	\$ 38,682	98.1%	94.1%
31-33	Manufacturing	8.6%	0.1%	0.9	\$ 39,304	90.1%	82.2%
42	Wholesale Trade	3.2%	3.3%	0.7	\$ 43,010	97.9%	94.0%
44-45	Retail Trade	10.8%	2.1%	1.0	\$ 25,017	97.3%	92.7%
48-49	Transportation & Warehousing	2.9%	1.6%	1.1	\$ 36,319	97.0%	92.2%
51	Information	1.2%	0.5%	0.4	\$ 43,343	95.1%	90.4%
52	Finance & Insurance	2.5%	2.5%	0.6	\$ 48,442	98.9%	98.9%
53	Real Estate & Rental & Leasing	1.2%	1.3%	0.6	\$ 30,909	99.7%	98.9%
54	Prof., Scientific & Technical Svcs	2.6%	5.3%	0.4	\$ 42,146	99.4%	97.9%
55	Management of Co.s & Enterprises	0.9%	-11.4%	0.6	\$ 51,870	89.0%	79.4%
56	Administrative & Waste Services	4.3%	3.4%	0.7	\$ 23,760	95.2%	90.9%
61	Educational Services	0.8%	6.6%	0.5	\$ 24,285	97.7%	93.7%
62	Health Care & Social Assistance	8.9%	2.9%	1.0	\$ 39,226	97.4%	94.7%
71	Arts, Entertainment, & Recreation	0.8%	1.8%	0.5	\$ 15,710	98.3%	90.4%
72	Accommodation & Food Services	6.5%	2.3%	0.8	\$ 12,669	98.9%	94.2%
81	Other Services	3.9%	3.9%	0.9	\$ 19,945	99.9%	99.8%
	All Government	19.6%	0.8%	1.2	\$ 42,491	N/A	N/A

\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

**Figure 8** shows the rankings for all major industry sectors in four important areas; employment size, growth rate, concentration and wages.

**Figure 8 Rankings**

NAICS	Major Industry Sector	Employment Size (2005)	AAGR*	2005 LQ**	Avg. Wage
11	Agriculture, Forestry, Fishing & Hunting	2	18	1	18
21	Mining	19	19	2	2
22	Utilities	20	9	6	1
23	Construction	7	1	5	11
31-33	Manufacturing	5	17	10	9
42	Wholesale Trade	10	6	13	6
44-45	Retail Trade	3	11	8	14
48-49	Transportation & Warehousing	11	13	7	12
51	Information	15	16	18	5
52	Finance & Insurance	13	8	17	4
53	Real Estate & Rental and Leasing	14	14	12	13
54	Prof., Scientific, & Technical Services	12	3	19	8
55	Management of Co.s & Enterprises	16	20	14	3
56	Administrative & Waste Services	8	5	15	16
61	Educational Services	18	2	20	15
62	Health Care & Social Assistance	4	7	9	10
71	Arts, Entertainment, & Recreation	17	12	16	19
72	Accommodation & Food Services	6	10	11	20
81	Other Services	9	4	4	17
	All Government	1	15	3	7

\* AAGR – Average Annual Growth Rate

\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

### Private Industry Sub-sectors and Industry Groups

While it is important to understand the economy at the major sector level, additional insight may be gained by looking at the sub-sector level, across all sectors. In the NAICS coding system, the three-digit level is the sub-sector level, and the four-digit level is the industry group level. The following explores the three- and four-digit levels in order to look within the major sectors to see specific sub-sectors and industry groups reporting significant employment, concentration and growth.

The ten largest sub-sectors (based on their employment size in 2005) provide over 41% of the region's jobs:

- Support Activities for Agriculture & Forestry (NAICS 115) provides 7.5% of the jobs;
- Food Services & Drinking Places (NAICS 722) provides 6% of the jobs;
- Crop Production (NAICS 111) provides 5% of the jobs;
- Specialty Trade Contractors (NAICS 238) provides 4.4% of the jobs;
- Administrative & Support Services (NAICS 561) provides 4% of the jobs;
- Food Manufacturing (NAICS 311) provides 3.7% of the jobs;
- Ambulatory Health Care Services (NAICS 621) provides 3.3% of the jobs;
- Hospitals (NAICS 622) provides 2.6% of the jobs;

- Professional, Scientific & Technical Services (NAICS 541) provides 2.6% of the jobs; and,
- General Merchandise Stores (NAICS 452) provides 2.3% of the jobs.

The ten sub-sectors with the highest concentration<sup>2</sup>, or greatest competitive advantage, (and representing at least 0.05% of the region's jobs in 2005) were:

- Animal Production (NAICS 112) with a concentration of 7.6;
- Support Activities for Mining (NAICS 213), with a concentration of 6.9;
- Support Activities for Agriculture (NAICS 115) with a concentration of 6.7;
- Oil & Gas Extraction (NAICS 211) with a concentration of 4.5;
- Crop Production (NAICS 111) with a concentration of 4.3;
- Food Manufacturing (NAICS 311) with a concentration of 3.7;
- Mining, except Oil and Gas, (NAICS 212) with a concentration of 2.4;
- Warehousing & Storage (NAICS 493) with a concentration of 1.9;
- Truck Transportation (NAICS 484) with a concentration of 1.9; and,
- Beverage Manufacturing (NAICS 312) with a concentration of 1.8.

The top ten fastest growing sub-sectors from 2001 to 2005, and providing at least 0.05% of the region's jobs, were:

- Petroleum & Coal Products Manufacturing (NAICS 324), with a 16.8% average annual growth rate (AAGR);
- Beverage Manufacturing (NAICS 312), with a 15.8% AAGR;
- Private Households (NAICS 814), with an 11.3% AAGR;
- Wholesale Electronic Markets & Agents & Brokers (NAICS 425), with a 10.6% AAGR;
- Specialty Trade Contractors (NAICS 238), with an 8.1% AAGR;
- Air Transportation (NAICS 481), with a 6.7% AAGR;
- Educational Services (NAICS 611), with a 6.6% AAGR;
- Construction of Buildings (NAICS 236), with a 6.5% AAGR;
- Building Material & Garden Equipment & Supplies Dirs (NAICS 444), with a 6.5% AAGR;
- Waste Management & Remediation Services (NAICS 562), with a 6.2% AAGR;

The top ten best-paying sub-sectors in 2005, and providing at least 0.05% of the region's jobs, were:

- Oil & Gas Extraction (NAICS 211), with an average annual wage of \$89,644;
- Securities, Commodity Contracts, & Other Financial Investments & Related Activities (NAICS 523), \$77,913;
- Utilities (NAICS 221), \$71,347;
- Petroleum & Coal Products Manufacturing (NAICS 324), \$63,087;
- Mining, except Oil and Gas, (NAICS 212), \$62,620;
- Support Activities for Mining (NAICS 213), \$56,330;

<sup>2</sup> A concentration greater than 1.0 means the region has a higher concentration of jobs in that industry than is found statewide. Industries highly concentrated in a region are important to the region, even if they are not the largest in employment size.

- Heavy & Civil Engineering Construction (NAICS 237), \$55,034;
- Telecommunications (NAICS 517), \$52,960;
- Management of Companies & Enterprises (NAICS 551), \$51,870;
- Beverage Manufacturing (NAICS 312), \$50,796;

Looking at the four-digit NAICS level, at private sector industry groups, **Figure 9** shows facts about the top 20 fastest growing industry groups, where the industry groups provided at least 0.01% of the region's employment. Some of these industry groups are very small in employment, but may warrant watching due to the very high growth reported from 2001-2005.

**Figure 9 Top 20 Fastest Growing Industry Groups**

NAICS	Industry Group	2005 Empl.*	2001-2005 AAGR	2005 Avg. Annual Wage
3336	Engine, Turbine & Power Transmission Equipmt Manufacturing	S	75.3%	\$ 67,617
1132	Forest Nurseries & Gathering of Forest Products	190	54.4%	\$ 18,381
4242	Drugs & Druggists' Sundries Merchant Wholesalers	220	40.3%	\$ 31,206
3259	Other Chemical Product & Preparation Manufacturing	270	33.1%	\$ 44,207
4882	Support Activities for Rail Transportation	170	32.0%	\$ 35,804
3311	Iron & Steel Mills & Ferroalloy Manufacturing	260	31.4%	\$ 44,081
6117	Educational Support Services	200	27.8%	\$ 24,935
4911	Postal Service**	90	20.7%	\$ 25,086
6112	Junior Colleges**	790	20.1%	\$ 36,515
5416	Management, Scientific & Technical Consulting Services	4,490	19.3%	\$ 34,580
5223	Activities Related to Credit Intermediation	1,220	18.7%	\$ 47,736
4529	Other General Merchandise Stores	5,720	18.1%	\$ 22,935
4859	Other Transit & Ground Passenger Transportation	550	17.7%	\$ 24,223
3119	Other Food Manufacturing	7,100	17.7%	\$ 31,034
4232	Furniture & Home Furnishing Merchant Wholesalers	320	16.6%	\$ 27,673
3241	Petroleum & Coal Products Manufacturing	1,300	16.4%	\$ 63,087
3345	Navigational, Measuring, Electromedical & Control Instr. Mfg	850	16.1%	\$ 49,056
3121	Beverage Manufacturing	5,650	15.8%	\$ 50,796
6116	Other Schools & Instruction	2,350	15.4%	\$ 15,178
4871	Scenic & Sightseeing Transportation, Land	S	15.1%	\$ 15,867

\* Employment rounded to nearest 10. "S" means the data is suppressed for confidentiality.

\*\* These are typically used by the government sector; however, private sector employment was reported in this industry group, as seen here.



## REGIONAL SNAPSHOT 2006 & 2007

*This snapshot provides estimates of employment change since 2005, to see what effects recent events may be having on the economy, as well as any lingering effects of the 2001 recession. This analysis uses a different data source than that used for the main report, so the findings for each time period are reported separately.\**

For the San Joaquin Valley Region, a look at recent preliminary data shows that the employment growth seen from 2001 to 2005 has continued in 2006 and 2007. Overall, nonfarm employment grew by 2.6% from 2005 to 2006, and again by 1.4% into 2007. During each time period, most of the eleven super sectors reported job growth.

Of particular interest, the growth in Construction seems to be ending, with losses reported in 2007; the same is true for Financial Activities. This may be related to the housing downturn. On the other hand, Manufacturing continues to report job growth, as do Professional & Business Services and Trade, Transportation & Utilities and several other sectors.

The following table summarizes employment change from 2001 to 2007. For 2001 through 2006, annual employment was compared; for 2006 to 2007, monthly employment data from July of each year was compared.

<b>SAN JOAQUIN VALLEY</b>	<b>2001-2005</b>	<b>2005-2006</b>	<b>July06-July07</b>
<b>Total Nonfarm</b>	<b>6.6%</b>	<b>2.6%</b>	<b>1.4%</b>
Natural Resources & Mining	-2.3%	8.9%	0.0%
Construction	32.2%	4.5%	-2.4%
Manufacturing	0.2%	0.3%	3.3%
Trade, Transportation, & Utilities	9.3%	2.9%	1.3%
Information	1.8%	-3.2%	-3.9%
Financial Activities	8.6%	2.7%	-0.2%
Professional & Business Services	6.0%	5.0%	1.0%
Educational & Health Services	13.3%	2.3%	1.7%
Leisure & Hospitality	9.2%	5.0%	1.7%
Other Services	-2.5%	-1.6%	1.4%
Government	3.3%	1.7%	2.5%

*\* The source for the 2006 and 2007 data is the Current Employment Statistics (CES) program. The source of the CES data differs from the primary source of data for this Economic Profile report, the Quarterly Census of Employment and Wage (QCEW) data, and information provided here may differ from the QCEW data released in the future for 2006 and 2007. Because the methodology behind the two data sources is different, the CES data is not commingled with the QCEW data in other sections of this report. This data was provided by the CES Unit at the LMID. The data used for the main report was summarized to match the definitions used in the CES data so that comparisons could be made regarding growth. For example, the CES data does not include the Private Households industry employment in the totals for the Other Services sector, as the Private Households industry only reports employment annually and data is not available for the CES monthly estimates.*

## THE ECONOMIC BASE

The economic base is traditionally considered to be made up of export-oriented industries in the study area - industries that sell a large portion of their goods or services to people and businesses in markets outside of the area. While the past economic base reports have varied in how they defined the economic base, we have decided to use the more traditional definition for this section of the report. Other industries that are also important to the region will be discussed in a later section.

The following sectors make up the economic base:

- High Tech Manufacturing
- Diversified Manufacturing
- Wholesale Trade & Transportation
- Professional, Business & Information Services
- Tourism & Entertainment
- Federal Government (Defense & Other Federal Government)
- Resource Based

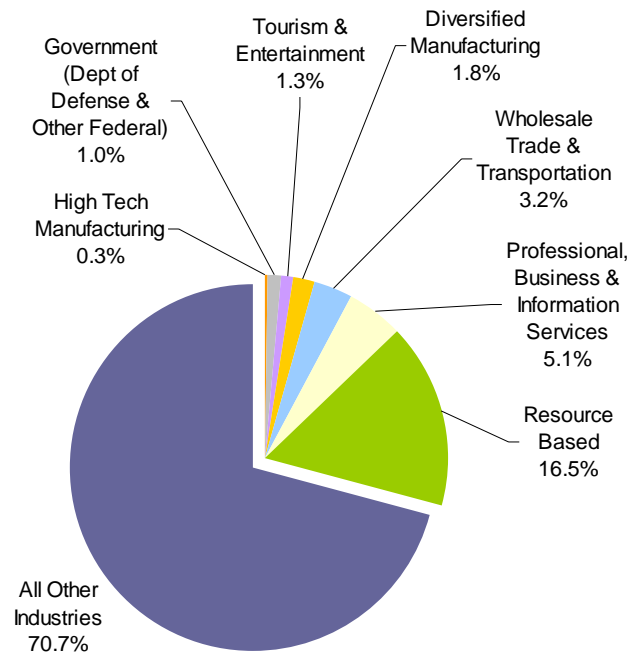
The San Joaquin Valley Region's economic base industries provided almost 384,500 jobs in 2005, or 29.5% of the region's jobs. From 2001 to 2005, the economic base industries reported overall job growth of 0.7%. Three of the seven sectors in the economic base reported job growth, while the other four reported job losses. Those reporting job growth include Wholesale Trade & Transportation (up just over 5,200, jobs or 14.1%); Professional, Business & Information Services (up over 3,500 jobs, or 5.6%); and, Tourism & Entertainment (up almost 900 jobs, or 5.6%).

The Resource Based sector is the largest component of the region's economic base, reporting about 217,100 jobs in 2005. Resource Based includes Farm, Logging, Mining, Sawmills, Fruit & Vegetable Preserving, Animal Processing and Seafood Preparation. Although the sector experienced job losses of about 1% from 2001 to 2005, there remains a high concentration of Resource Based jobs in this region compared to the statewide level, giving the region a competitive advantage in this sector.

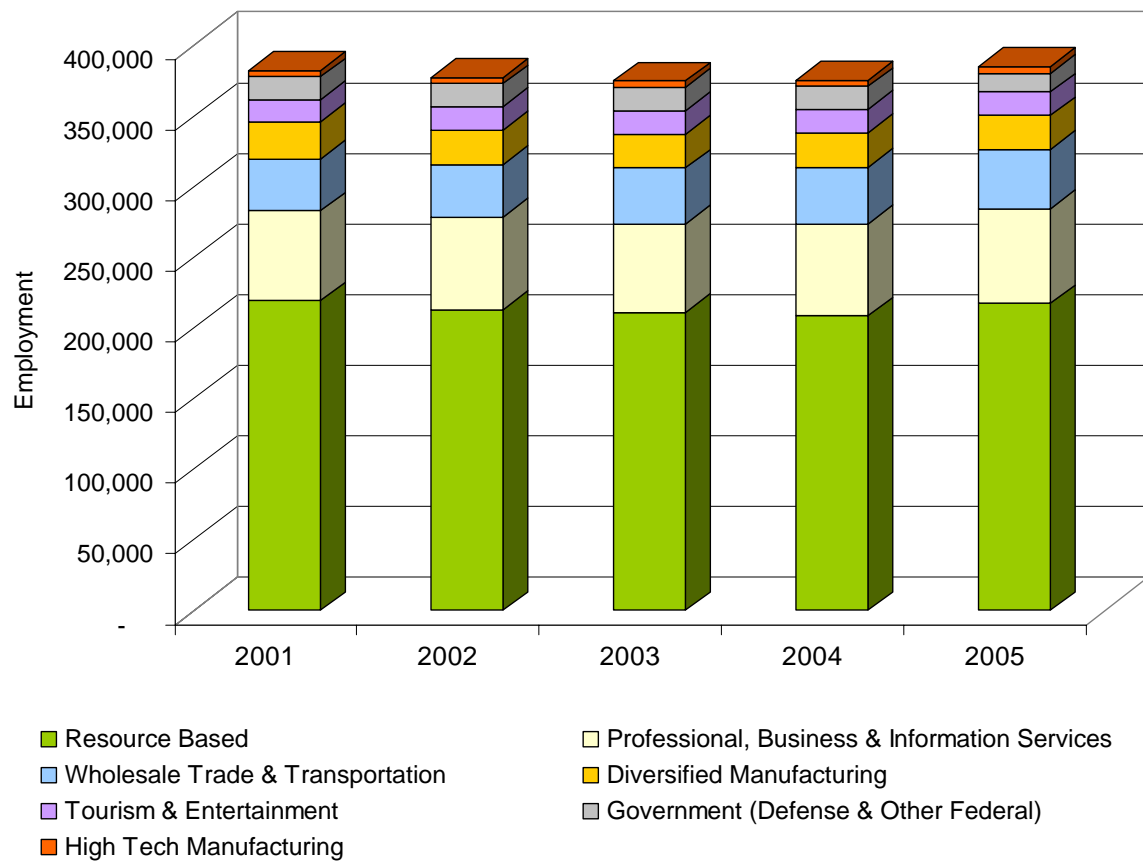
The second largest component of the economic base is Professional, Business & Information Services, with just over 67,000 jobs in 2005. Third, Wholesale Trade & Transportation reported over 42,200 jobs and experienced the largest job growth, in both number and percentage. At the same time, High Tech Manufacturing and Diversified Manufacturing reported job losses from 2001 to 2005, of -5.2% and -9.6% respectively, and Federal Government (Defense and Other Federal Government) reported job losses of 2,500.

Each region's economic base is unique in that the distribution of employment differs from region to region. **Figure 10** shows the distribution of jobs in 2005 and **Figure 11** shows employment from 2001 to 2005 for the San Joaquin Valley Region's economic base.

**Figure 10 Economic Base Employment 2005**



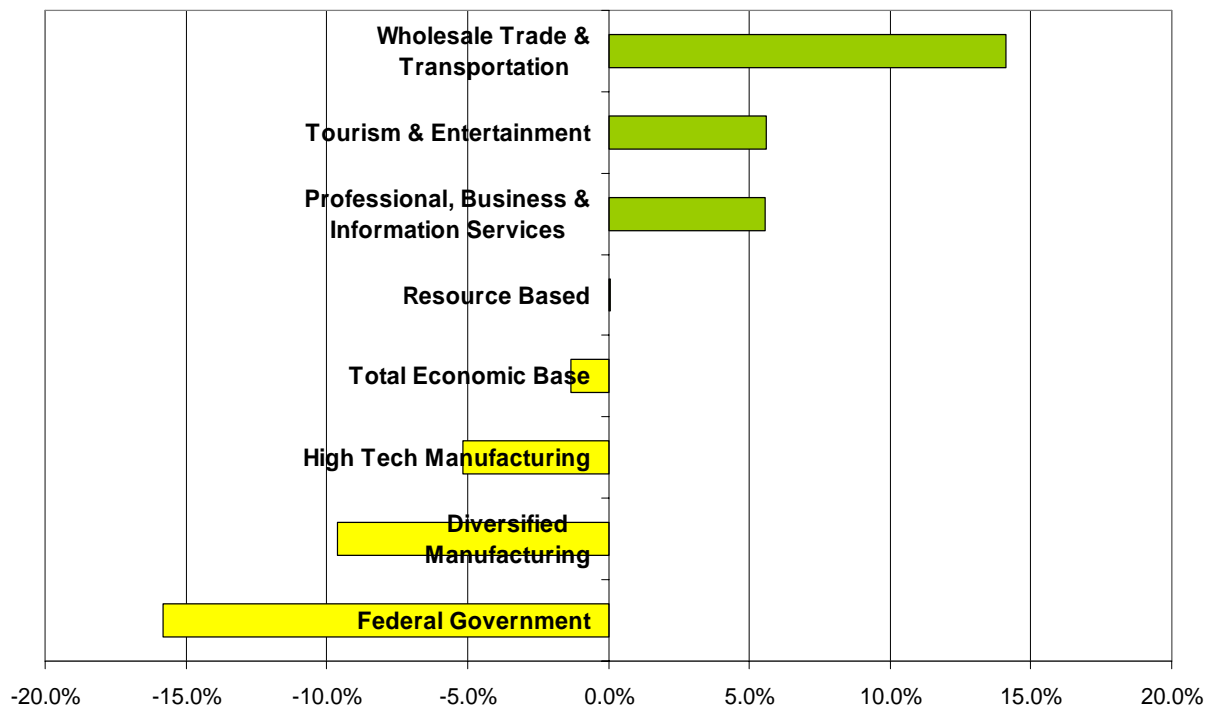
**Figure 11 Economic Base Employment 2001-2005**



In addition to employment size, job growth is another important factor. For the period 2001 to 2005, Wholesale Trade & Transportation reported the highest percentage of job growth, followed by Tourism & Entertainment and Professional, Business & Information Services. Federal Government (Defense and Other Federal Government) reported the greatest job losses for this period.

**Figure 12** shows job growth for each component of the economic base, from 2001 to 2005.

**Figure 12 Job Growth 2001 - 2005**



## Size of Business

From 2001 to 2005, the percentage of economic base businesses with fewer than 100 employees remained constant, at 95.8% in 2001 and 95.7% in 2005. These businesses provided 42.2% of the economic base employment in 2001, and 43.5% of the base employment in 2005. In contrast, only 4.3% of the private sector businesses in the economic base employ 100 or more workers, and these businesses provide 56.5% of the economic base's private sector jobs.

**Figure 13 Distribution of Firms and Jobs in the Economic Base by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	49.6%	3.5%
5-9	17.7%	5.1%
10-19	13.6%	8.1%
20-49	10.7%	14.1%
50-99	4.2%	12.7%
100-249	2.7%	18.1%
250-499	1.0%	15.6%
500+	0.5%	22.9%

Businesses with fewer than 50 employees provided 30.8% of all (private) economic base jobs in 2005; in comparison, businesses with fewer than 50 employees provide 44.5% of all private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided just 8.6% of all (private) economic base jobs.

Tourism & Entertainment reported the highest percentage of businesses with fewer than 100 employees, at 98.0%, followed by Wholesale Trade & Transportation, at 97.9%. High Tech Manufacturing reported the lowest percentage, at 89.4%. The percentage of economic base firms that are businesses with fewer than 100 employees and fewer than 50 employees, by industry sector, is included in **Figure 14**.

**Figure 14** provides a summary of facts for the economic base industries:

**Figure 14 Economic Base**

Sector	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with less than 100 employees	Firms with less than 50 employees
High Tech Manufacturing	4,400	-5.2%	0.1	\$ 52,758	89.4%	84.7%
Diversified Manufacturing	23,500	-9.6%	0.7	\$ 36,455	93.1%	85.6%
Wholesale Trade & Transportation	42,200	14.1%	0.7	\$ 42,854	97.9%	93.9%
Professional, Business & Information Services	67,000	5.6%	0.5	\$ 36,891	96.8%	93.6%
Tourism & Entertainment	16,900	5.6%	0.4	\$ 15,447	98.0%	91.5%
Governmt, Dept of Defense & Other Fed. Govt.	13,300	-15.8%	0.4	\$ 53,706	N/A	N/A
Resource Based	217,200	-0.9%	5.4	\$ 22,613	94.4%	90.3%
<b>Total Economic Base***</b>	<b>384,500</b>	<b>0.7%</b>	<b>1.1</b>	<b>\$ 28,413</b>	<b>95.7%</b>	<b>91.5%</b>

\* Employment rounded to nearest 100. Total employment may not equal sum of sectors due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* The average annual wage for the total economic base was calculated using only private industry wage and employment information.

## The Base Multiplier

One method for estimating the impact of the basic sector upon the local economy is the Base Multiplier. The Base Multiplier can provide insight as to how many non-basic jobs (jobs created in those industries not considered a part of the economic base) are created by one economic

base job. The base multiplier is calculated by dividing the total employment by the economic base employment for a given year.

The Base Multiplier factor for the San Joaquin Valley Region for 2001 through 2005 was:

**Figure 15 Base Multiplier 2001 - 2005**

Year	2001	2002	2003	2004	2005
Base Multiplier	3.18	3.27	3.32	3.37	3.39

This suggests that almost 3.2 jobs were created in non-basic industries for every economic base job created in 2001. This has increased to about 3.4 jobs created in non-basic industries for every base job created in 2005.

The following provides a more in-depth look at each component of the economic base.

## **HIGH TECH MANUFACTURING**

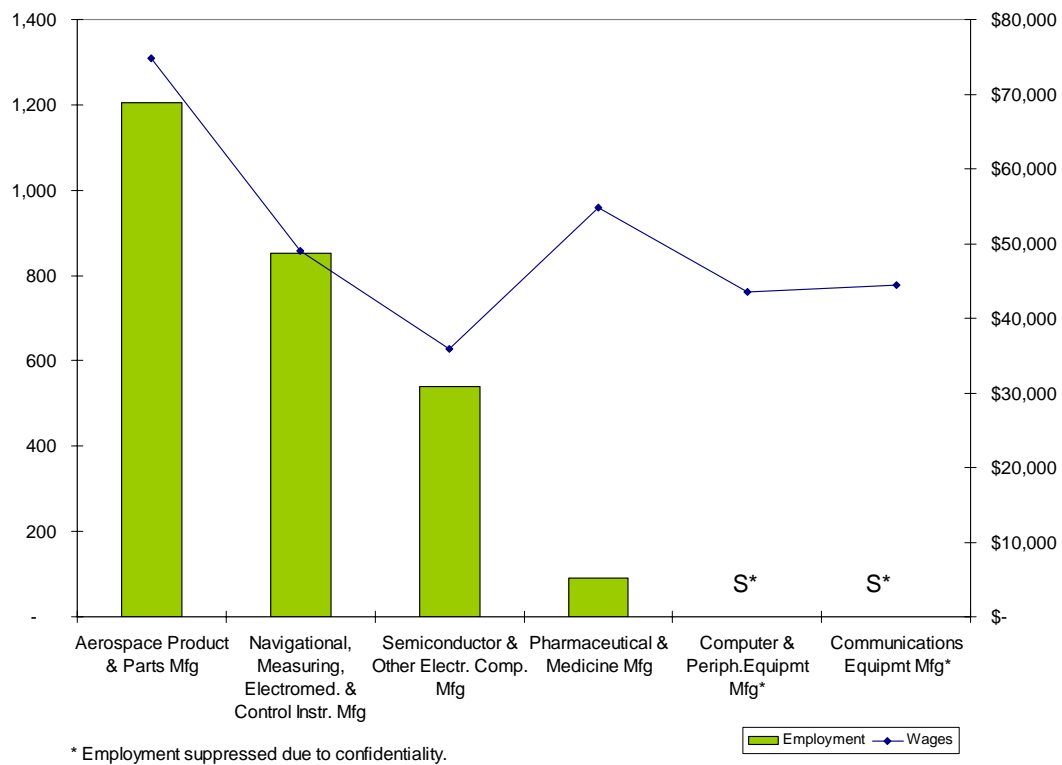
The High Tech Manufacturing component of the economic base includes Computer & Peripheral Equipment Manufacturing; Communications Equipment Manufacturing; Semiconductor & Other Electronic Component Manufacturing; Navigational, Measuring, Electromedical and Control Instruments Manufacturing; Aerospace Product & Parts Manufacturing; and, Pharmaceutical & Medicine Manufacturing. In 2005, this sector provided about 4,400 jobs.

Overall, this sector reported job losses of just over 5% from 2001 to 2005. This was led by losses in the Semiconductor & Other Electronic Component Manufacturing sub-sector, down almost 700 jobs, or 55%. Losses were also reported in Pharmaceutical & Medicine Manufacturing (down 44%); Computer & Peripheral Equipment Manufacturing (down 23%); and, Aerospace Product & Parts Manufacturing (down 20%). During this same period, two sub-sectors reported job growth. Navigational, Measuring, Electromedical and Control Instruments Manufacturing reported an increase of 89%, or almost 400 jobs, and Communications Equipment Manufacturing was up almost 34%.

Within High Tech Manufacturing, most of the jobs are found in Communications Equipment Manufacturing (employment data are suppressed for this industry group due to confidentiality) and Aerospace Product & Parts Manufacturing. The region has a lower concentration of jobs at the sub-sector/industry group levels than found at the statewide level.

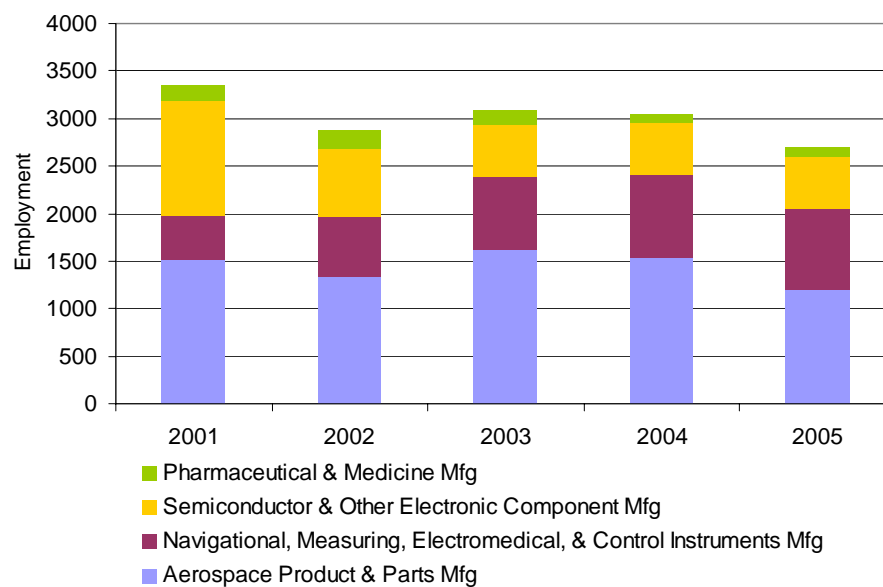
In 2005, the average annual wage for this sector was \$52,758. At the sub-sector level, average annual wages ranged from a high of \$74,861 reported by Aerospace Product & Parts Manufacturing, to a low of \$35,903 reported by Semiconductor & Other Electronic Component Manufacturing.

**Figure 16 High Tech Manufacturing 2005 Employment & Average Wages**



**Figure 17** shows employment change from 2001 to 2005 for the industries in High Tech Manufacturing. Computer & Peripheral Equipment Mfg and Communications Equipment Mfg are not shown due to confidentiality.

**Figure 17 High Tech Manufacturing Industries Employment 2001-2005**



**Figure 18** provides a summary of economic facts for the High Tech Manufacturing sector.

**Figure 18 High Tech Manufacturing**

NAICS	Industry	2005 Empl*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with less than 100 employees	Firms with less than 50 employees
3341	Computer & Peripheral Equipmt Mfg	S	-22.9%	0.01	\$ 43,570	100.0%	100.0%
3342	Communications Equipment Mfg	S	33.8%	0.7	\$ 44,420	90.0%	90.0%
3344	Semiconductor & Other Electronic Component Mfg	500	-55.1%	0.1	\$ 35,903	88.2%	88.2%
3345	Navigational, Measuring, Electromedical, & Control Instruments Mfg	900	81.9%	0.1	\$ 49,056	86.4%	72.7%
3364	Aerospace Product & Parts Manufacturing	1,200	-20.4%	0.2	\$ 74,861	87.0%	82.6%
3254	Pharmaceutical & Medicine Mfg	100	-43.6%	0.03	\$ 54,812	100.0%	100.0%

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## DIVERSIFIED MANUFACTURING

The Diversified Manufacturing component of the economic base includes Wood Product Manufacturing, Paper Manufacturing, Printing & Related Support Activities, Furniture & Related Product Manufacturing, Medical Equipment & Supplies Manufacturing, Apparel Manufacturing, Chemical Manufacturing (except Pharma), and Plastics & Rubber Products Manufacturing. In 2005, this sector provided just over 23,500 jobs, and was the fourth largest component of the region's economic base.

Overall, this sector reported job losses of almost 10% from 2001 to 2005. The greatest percentage of job losses was in Apparel Manufacturing, down 36% (a loss of less than 200 jobs); the most jobs were lost in Printing and Related Support Activities, down 1,000 jobs (a loss of 23%). Only two sub-sectors reported job growth during this period; Chemical Manufacturing (except Pharma) gained over 400 jobs, an increase of about 22%, and Furniture & Related Product Manufacturing gained less than 100 jobs, for an increase of 1.5%.

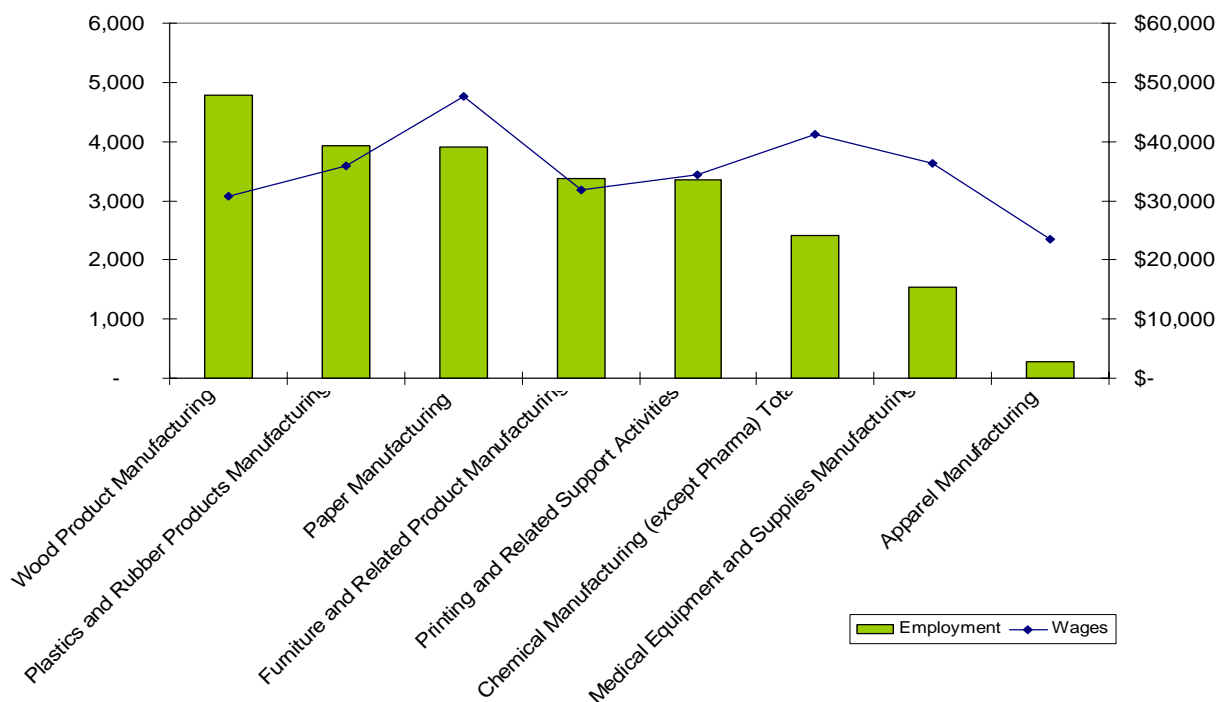
Within Diversified Manufacturing, the most employment is found in Wood Product Manufacturing, Plastics & Rubber Products Manufacturing and Paper Manufacturing. The region has a higher concentration of jobs in Wood Product Manufacturing (1.4 LQ) and Paper Manufacturing (1.6 LQ) than found at the statewide level.

In 2005, the average annual wage for this sector was \$36,455. At the sub-sector level, this ranged from a high of \$47,668 in Paper Manufacturing, to a low of \$23,505 in Apparel Manufacturing.

The 2005 average annual wage and employment are shown in **Figure 19**.

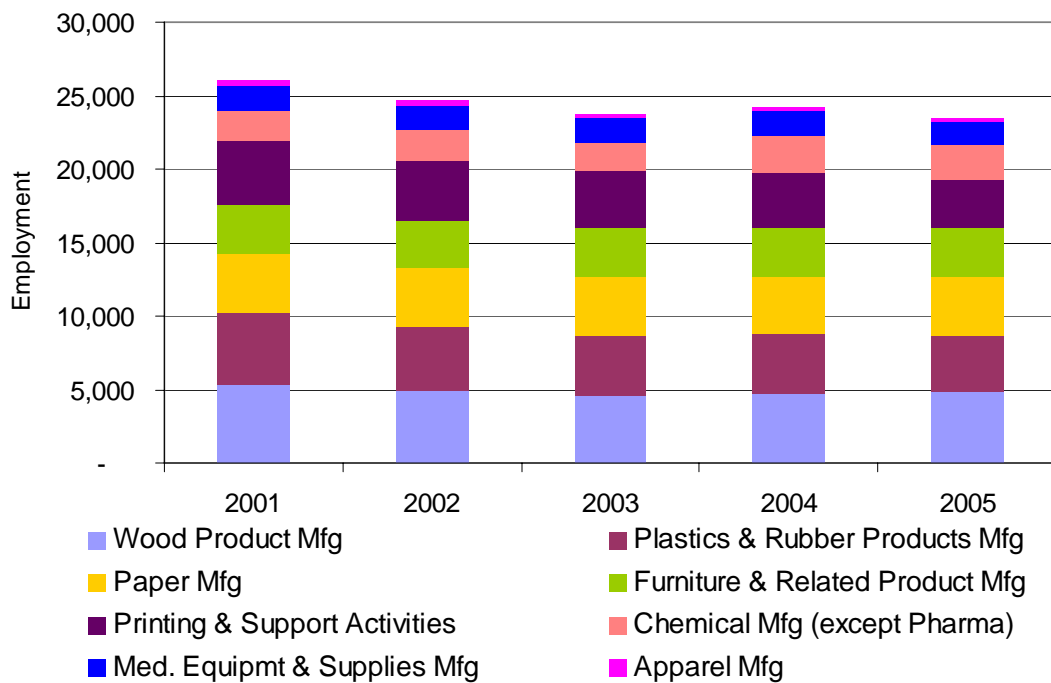


**Figure 19 Diversified Manufacturing 2005 Employment & Average Wages**



**Figure 20** shows employment change from 2001 to 2005 for the industries in Diversified Manufacturing.

**Figure 20 Diversified Manufacturing Industries Employment 2001-2005**



**Figure 21** provides a summary of economic facts for the Diversified Manufacturing sector.

**Figure 21 Diversified Manufacturing**

NAICS	Sub-sector	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
321	Wood Product Manufacturing	4,800	-9.5%	1.4	\$ 30,777	89.6%	76.8%
322	Paper Manufacturing	3,900	-4.6%	1.6	\$ 47,668	66.7%	49.0%
323	Printing & Support Activities	3,300	-23.0%	0.7	\$ 34,441	97.2%	93.4%
337	Furniture & Related Product Mfg	3,400	1.5%	0.7	\$ 31,888	84.6%	91.6%
3391	Medical Equipmt & Supplies Mfg	1,500	-8.9%	0.4	\$ 36,317	97.8%	96.3%
315	Apparel Manufacturing	300	-36.1%	0.0	\$ 23,505	100.0%	96.0%
325-3254	Chemical Mfg (except Pharma)	2,400	21.8%	0.7	\$ 41,245	97.2%	92.4%
326	Plastics & Rubber Products Mfg	3,900	-20.2%	0.8	\$ 35,926	96.7%	68.1%

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## WHOLESALE TRADE & TRANSPORTATION

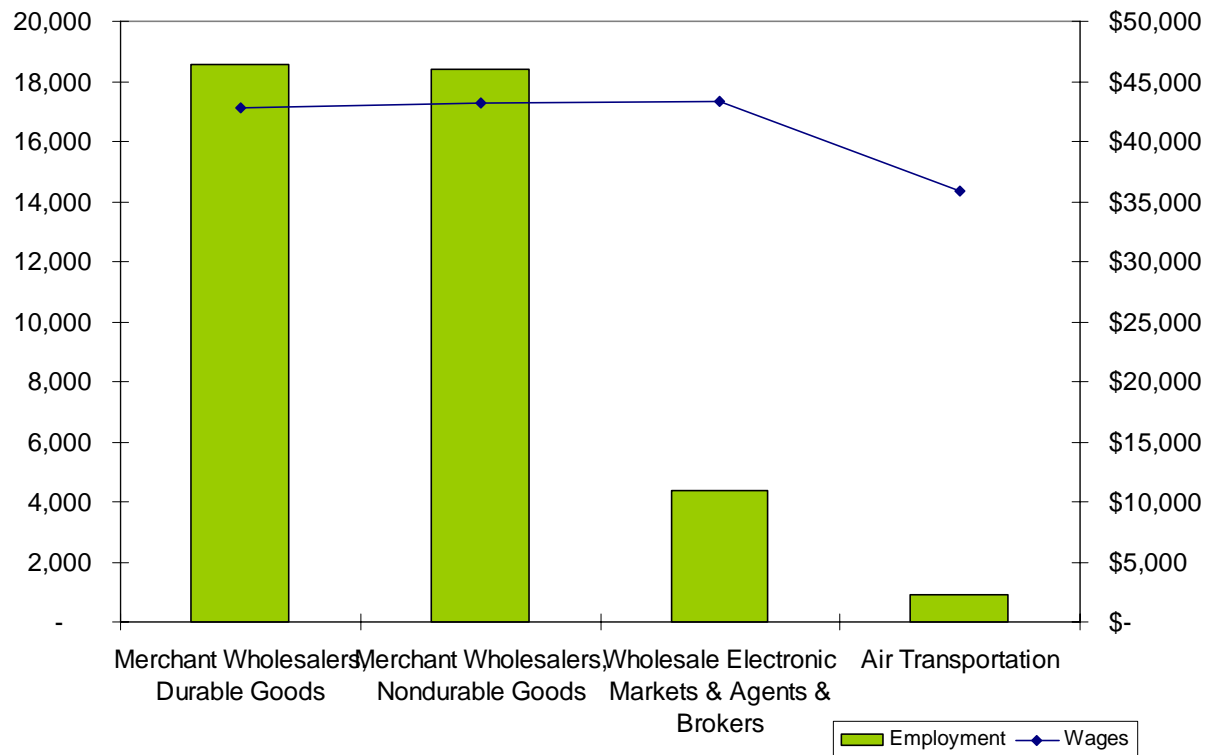
The Wholesale Trade & Transportation sector includes Merchant Wholesalers, Durable Goods; Merchant Wholesalers, Nondurable Goods; Wholesale Electronic Markets & Agents & Brokers; and, Air Transportation. In 2005, Wholesale Trade & Transportation was the third largest component of the economic base, providing just over 42,200 jobs.

Overall, Wholesale Trade & Transportation reported job growth of 14% from 2001 to 2005. All four sub-sectors reported growth, with Wholesale Electronic Markets & Agents & Brokers reported the greatest percentage growth at 50% (up 1,450 jobs), and Merchant Wholesalers, Nondurable Goods reporting the greatest number of jobs gained at over 2,100 jobs (up 13%).

Within Wholesale Trade & Transportation, most of the jobs are found in Merchant Wholesalers, Durable Goods and Merchant Wholesalers, Nondurable Goods. Looking further, Merchant Wholesalers, Durable Goods is led by Farm & Garden Machinery & Equipment Wholesalers, and Industrial Machinery & Equipment Wholesalers. Merchant Wholesalers, Nondurable Goods is led by Farm Supplies Wholesalers, Fresh Fruit & Vegetable Wholesalers, Other Grocery Wholesalers and General Line Grocery Wholesalers. The region has a higher concentration of jobs in these industries than at the statewide level, especially in Farm & Garden Machinery & Equipment Wholesalers (4.7 LQ) and Farm Supplies Wholesalers (4.6 LQ).

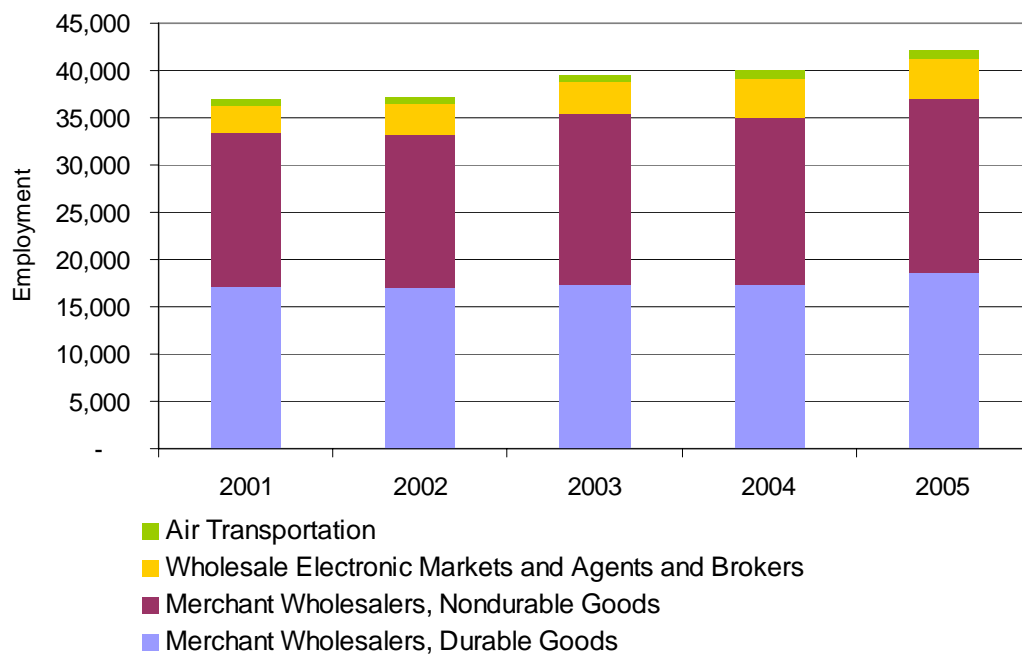
In 2005, the average annual wage for this sector was \$42,854. This ranged from a high of \$43,390 for Wholesale Electronic Markets & Agents & Brokers, to a low of \$35,865 for Air Transportation jobs. **Figure 22** shows employment and average annual wages for all of the sub-sectors.

**Figure 22 Wholesale Trade & Transportation 2005 Employment & Average Wages**



**Figure 23** shows employment change from 2001 to 2005 for the industries in Wholesale Trade & Transportation.

**Figure 23 Wholesale Trade & Transportation Industries Employment 2001-2005**



**Figure 24** provides a summary of economic facts for the Wholesale Trade & Transportation sector.

**Figure 24 Wholesale Trade & Transportation**

NAICS	Sub-sector	2005 Empl <sup>mt</sup> *	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
423	Merchant Whlslrs, Durable Goods	8,600	8.3%	0.6	\$ 42,793	98.6%	94.5%
424	Merchant Whlslrs, Nondurable Goods	8,400	13.1%	0.9	\$ 43,140	96.1%	91.5%
425	Whlsle Electr. Mkts, Agents, Brokers	4,400	49.9%	0.6	\$ 43,390	99.5%	97.0%
481	Air Transportation	900	29.7%	0.2	\$ 35,865	95.7%	95.7%

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## PROFESSIONAL, BUSINESS & INFORMATION SERVICES

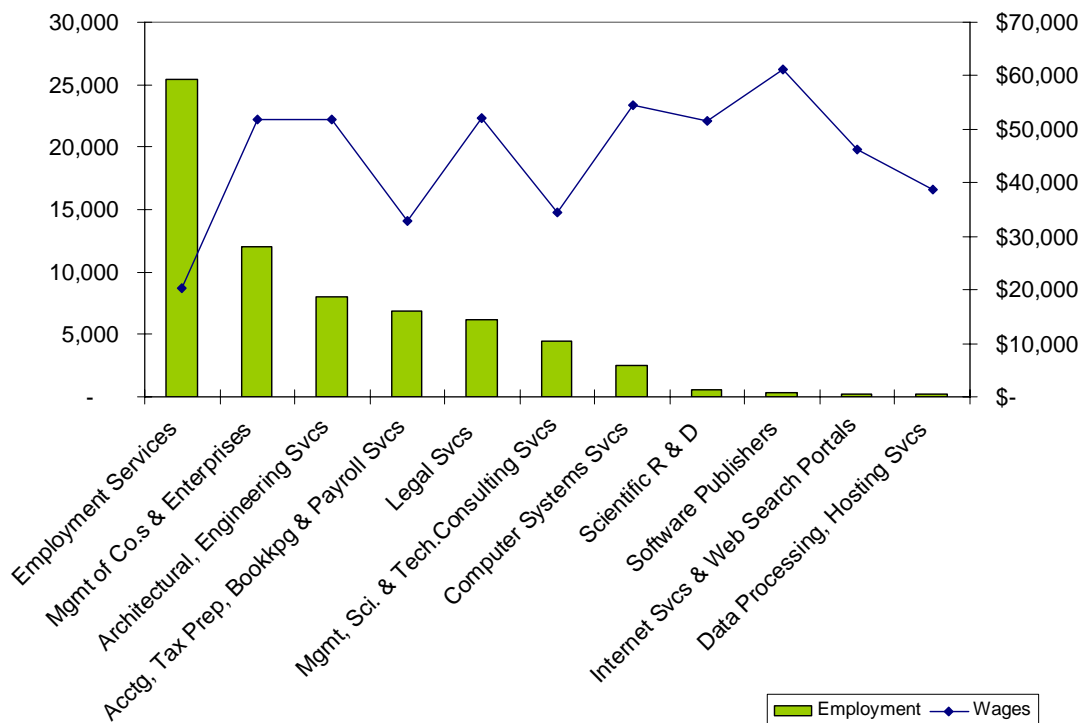
The Professional, Business & Information Services sector includes Legal Services; Accounting, Tax Preparation, Bookkeeping and Payroll Services; Architectural, Engineering and Related Services; Computer Systems Design and Related Services; Management, Scientific and Technical Consulting Services; Scientific Research and Development Services; Management of Companies and Enterprises; Employment Services; Software Publishers; Internet Service Providers and Web Search Portals; and, Data Processing, Hosting and Related Services. In 2005, this sector was the second largest component of the economic base, and provided just over 67,000 jobs.

Overall, this sector reported job growth of 5.6% from 2001 to 2005. Five sub-sectors reported job gains during this period, while six sub-sectors reported job losses. The sub-sector reported the greatest percentage of growth was Management, Scientific and Technical Consulting Services, up 102.5%; the Employment Services sub-sector reported the greatest number of jobs gained, up almost 5,600 jobs.

Within Professional, Business & Information Services, most of the jobs are found in Employment Services (led by Temporary Help Services), followed by Management of Companies & Enterprises (led by Corporate, Subsidiary & Regional Managing Offices). The region has a lower concentration of jobs in these industries than found at the statewide level.

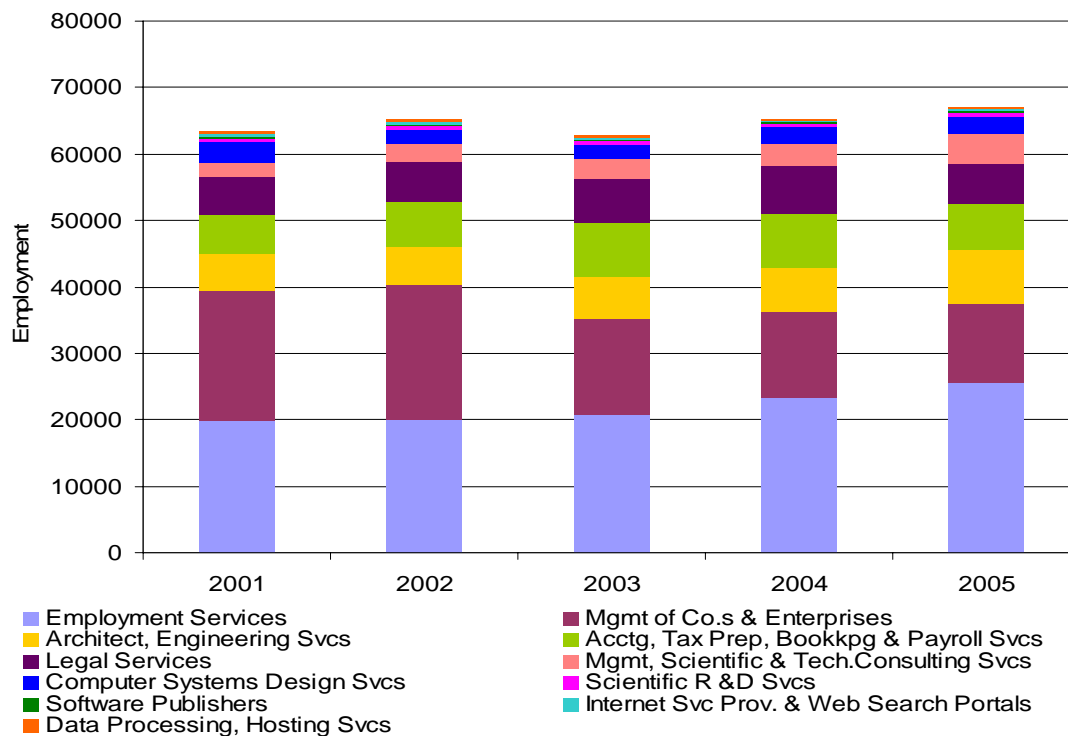
In 2005, the average annual wage for the sector was \$36,891; Software Publishers reported the highest average of \$61,281, while Employment Services reported the lowest average wage of \$20,418. **Figure 25** shows employment and average annual wages for all of the sub-sectors.

**Figure 25 Professional, Business & Information Services 2005 Employment & Wages**



**Figure 26** shows employment change from 2001 to 2005 for the industries in Professional, Business & Information Services.

**Figure 26 Professional, Business & Info Svcs Industries Employment 2001-2005**



**Figure 27** provides a summary of economic facts for the Professional, Business & Information Services sector.

**Figure 27 Professional, Business & Information Services**

NAICS	Industry	2005 Emplmt*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
5411	Legal Services	6,100	9.7%	0.5	\$ 52,203	99.8%	98.8%
5412	Accounting, Tax Prep, Bookkpg & Payroll Svcs	6,900	15.7%	0.7	\$ 32,908	99.6%	98.4%
5413	Architectural, Engineering & Related Svcs	8,000	46.3%	0.6	\$ 51,805	98.8%	95.6%
5415	Computer Systems Design Svcs	2,500	-14.3%	0.2	\$ 54,428	98.4%	96.4%
5416	Mgmt, Scientific & Tech.Consult.Svcs	4,500	102.5%	0.4	\$ 34,580	99.1%	97.9%
5417	Scientific R & D Svcs	600	-5.8%	0.1	\$ 51,692	100.0%	97.0%
5511	Mgmt of Co.s & Enterprises	12,100	-38.5%	0.6	\$ 51,870	89.0%	89.0%
5613	Employment Svcs	25,500	28.0%	0.7	\$ 20,418	67.8%	67.8%
5112	Software Publishers	300	-7.8%	0.1	\$ 61,281	100.0%	88.9%
5181	Internet Svc Providers & Web Search Portals	300	-32.4%	0.1	\$ 46,126	97.3%	97.3%
5182	Data Processing, Hosting, Related Svcs	300	-36.7%	0.1	\$ 38,793	100.0%	100.0%

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## TOURISM & ENTERTAINMENT

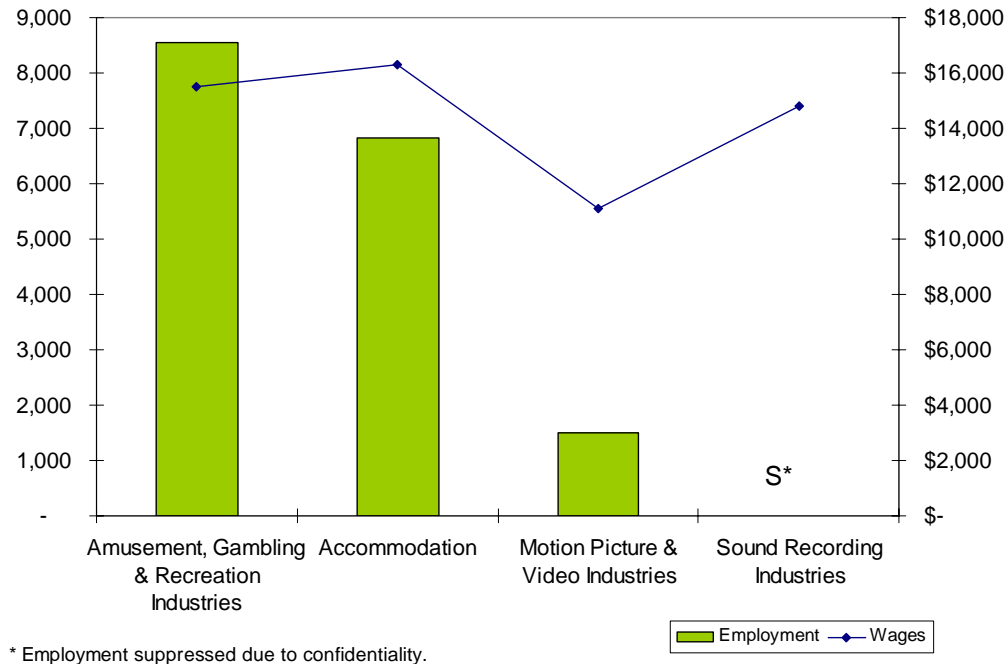
The Tourism & Entertainment sector includes Motion Picture & Video Industries; Sound Recording Industries; Amusement, Gambling & Recreation Industries; and, Accommodation. In 2005, this sector provided almost 16,900 jobs, and was the fifth largest component of the economic base.

Overall, this sector reported job growth of 5.6% from 2001 to 2005. The Motion Picture and Video Industries and Amusement, Gambling, and Recreation Industries sub-sectors reported job gains, up almost 33% and 9% respectively. At the same time, the Sound Recording Industries and Accommodation sub-sectors reported job losses (down about 90% and 0.7% respectively).

Within the Motion Picture & Video Industries industry group, most of the jobs are concentrated in Motion Picture Theaters. Within Amusement, Gambling & Recreation Industries, most of the jobs are found in Fitness & Recreational Sport Centers, Golf Courses & Country Clubs, and All Other Amusement & Recreation Industries. Within Accommodation, most of the jobs are found in Hotels (except Casino Hotels) & Motels. The region has a lower concentration of jobs at the sub-sector/industry group levels than found at the statewide level, with the exception of Rooming & Boarding Houses (1.2 LQ).

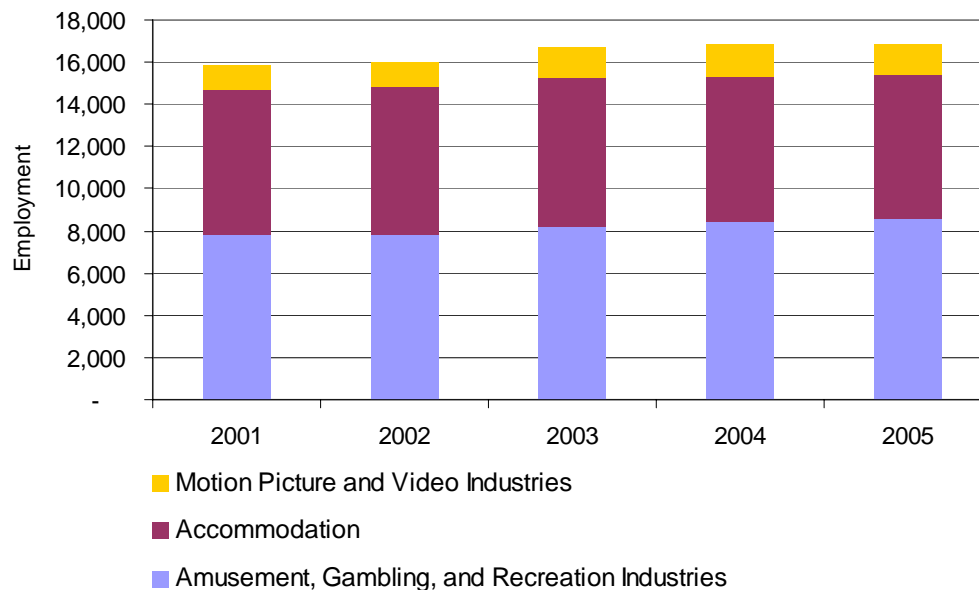
In 2005, the average annual wage reported for this sector was \$15,447. This ranged from a high of \$16,316 for Accommodation, to a low of \$11,079 for Motion Picture & Video Industries. **Figure 28** shows employment and average annual wages for all of the sub-sectors.

**Figure 28 Tourism & Entertainment 2005 Employment & Wages**



**Figure 29** shows employment change from 2001 to 2005 for the industries in Tourism & Entertainment. Sound Recording Industries is not shown due to confidentiality.

**Figure 29 Tourism & Entertainment Industries Employment 2001-2005**



**Figure 30** provides a summary of economic facts for the Tourism & Entertainment sector.

**Figure 30 Tourism & Entertainment**

NAICS	Sub-sector/Industry	2005 Employmt*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
5121	Motion Picture & Video Industries	1,493	32.7%	0.1	\$ 11,079	96.6%	86.4%
5122	Sound Recording Industries	S	-89.9%	0.04	\$ 14,786	100.0%	100.0%
713	Amusement, Gambling & Rec. Ind.s	8,547	9.1%	0.6	\$ 15,517	98.2%	88.8%
721	Accommodation	6,821	-0.7%	0.4	\$ 16,316	97.9%	95.1%

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## RESOURCE BASED

The Resource Based industries make up the largest component of the region's economic base. Resource Based includes Farm<sup>3</sup>, Logging, Mining, Sawmill & Woodworking Machinery Manufacturing, Fruit & Vegetable Preserving & Specialty Food Manufacturing, Animal Slaughtering & Processing and Seafood Preparation & Packaging<sup>4</sup>.

In 2005, this sector provided almost 217,200 jobs for the region, although the sector reported job losses of less than 1% from 2001 to 2005. There is high concentration of Resource Based jobs in this region, with a 5.4 LQ overall. Farm, Mining, Fruit & Vegetable Preserving & Specialty Food Manufacturing and Animal Slaughtering & Processing all have concentrations significantly higher than the statewide average. See **Figure 33** for concentration levels (LQs).

At the main sub-sector/industry group level, only Farm (up 0.1%) and Animal Slaughtering & Processing (up 10.3%) reported growth. The most jobs were lost in the Fruit & Vegetable Preserving & Specialty Food Manufacturing industry group, led by losses in the Fruit & Vegetable Canning, Pickling, & Drying industry.

In 2005, the average annual wage reported for this sector was \$22,613. This ranged from a high of \$67,970 for Mining, to a low of \$19,026 for Farm jobs.

**Figure 31** shows employment and average annual wages for the Resource Based industries.

<sup>3</sup> Farm equals all Agriculture, Forestry, Fishing & Hunting jobs (NAICS 11) except Logging (NAICS 1133).

<sup>4</sup> There was no employment reported for Sawmill & Woodworking Machinery Manufacturing or for Seafood Preparation & Packaging for the San Joaquin Valley Region. These industries are mentioned here so that the economic base definition is consistent across regions.

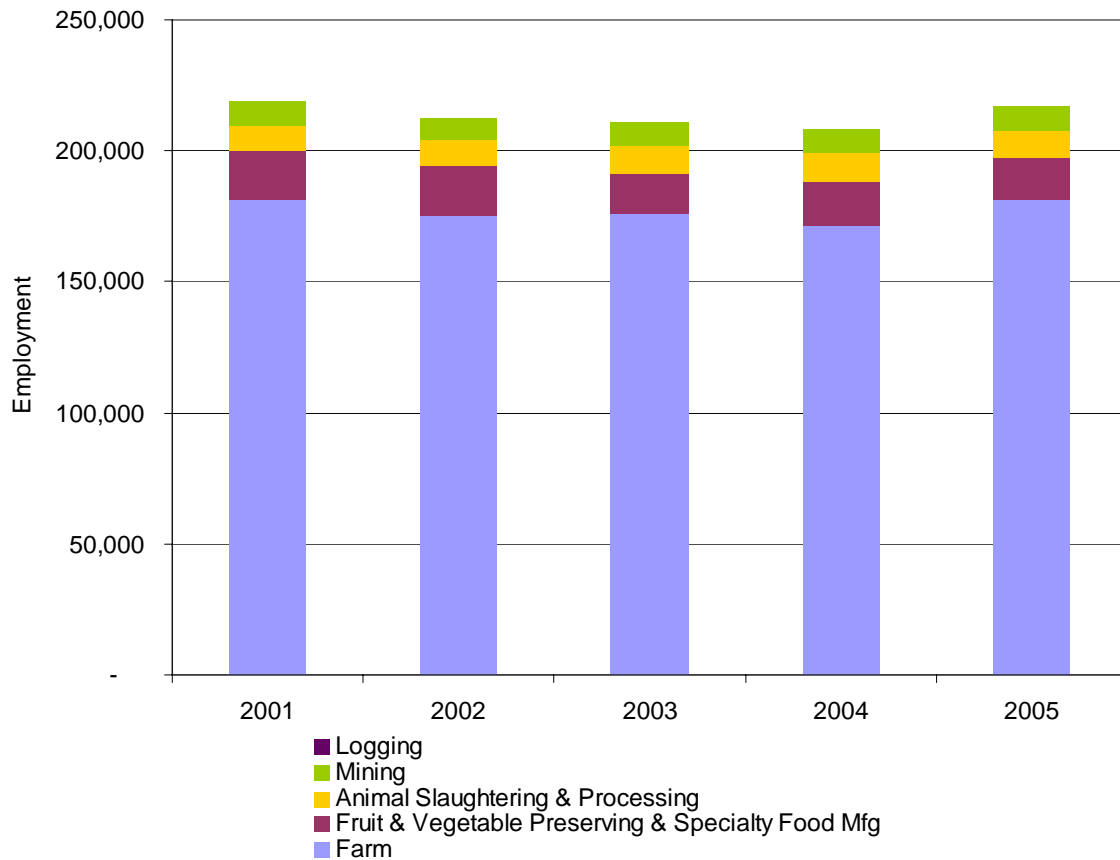


**Figure 31 Resource Based 2005 Employment & Wages**



**Figure 32** shows employment change from 2001 to 2005 for the Resource Based industries.

**Figure 32 Resource Based Industries Employment 2001-2005**



**Figure 33** provides a summary of economic facts for the Resource Based industries.

**Figure 33 Resource Based**

NAICS	Sub-sector/Industry	2005 Emplmnt*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
11-1133	Farm	181,400	0.1%	5.5	\$ 19,026	95.2%	91.2%
1133	Logging	100	-4.8%	0.3	\$ 39,382	100.0%	100.0%
21	Mining	9,000	-2.3%	4.8	\$ 67,970	87.8%	79.1%
3114	Fruit & Veg. Preserv. & Spec.Food Mfg	16,000	-14.9%	5.3	\$ 32,911	58.1%	48.6%
3116	Animal Slaughtering & Processing	10,800	10.3%	6.1	\$ 29,743	70.6%	62.7%
3117	Seafood Product Prep & Packaging	0	0	N/A	0	N/A	N/A
33321	Sawmill & Woodworking Machinery Mfg	0	0	N/A	0	N/A	N/A

\* Employment rounded to nearest 100. "S" means employment was suppressed due to confidentiality.

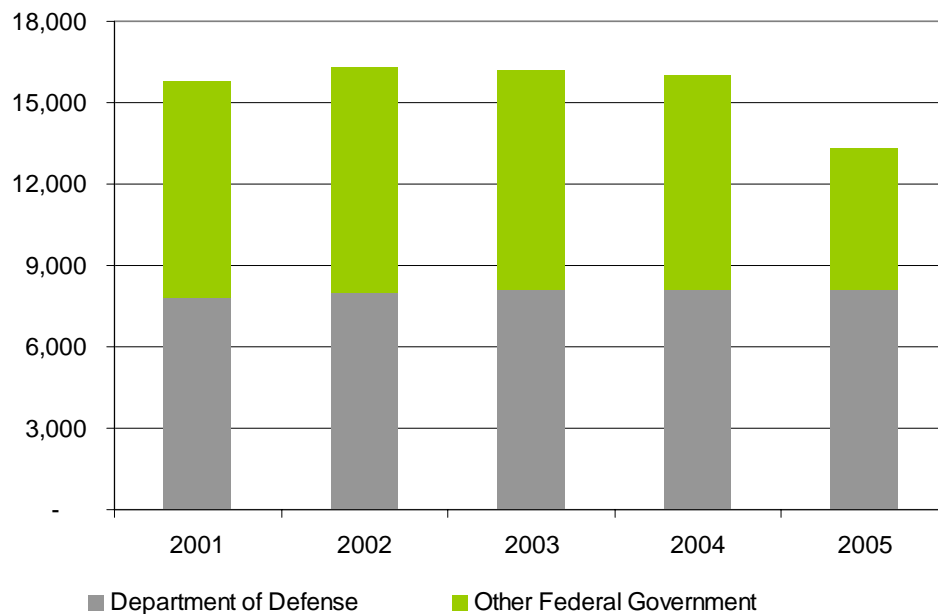
\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## FEDERAL GOVERNMENT, DEFENSE AND OTHER FEDERAL GOVERNMENT

The Federal Government sector in the economic base includes Defense and Other Federal Government. In 2005, this sector provided 13,300 of the region's jobs.

This sector experienced job losses of 2,500 jobs from 2001 to 2005, a loss of 15.8%. During this period, Defense reported job growth of 300, while Other Federal Government reported job losses of 2,800.

**Figure 34 Defense and Other Federal Government Employment 2001 to 2005**



The region has a higher concentration of Defense jobs (1.7 LQ) than found at the statewide level, but a lower concentration of Other Federal Government jobs (0.3 LQ).

In 2005, the average annual wage for all federal jobs was \$53,706. A separate average for Defense or Other Federal Government was not available, so we are presenting the average for all federal jobs.

**Figure 35** provides a summary of economic facts for Federal Government, Defense and Other Federal Government.

**Figure 35 Federal Government, Defense and Other Federal Government**

<b>Sub-sector</b>	<b>2005 Employmt*</b>	<b>Growth 01- 05</b>	<b>2005 LQ**</b>	<b>2005 Avg. Annual Wages***</b>
Defense	8,100	3.8%	1.7	\$53,706
Other Federal Government	5,200	-35.0%	0.3	\$53,706

\* Employment rounded to nearest 100.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* A separate average for Defense or Other Federal Government was not available, so we are presenting the average for all federal jobs.

## BEYOND THE ECONOMIC BASE: A LOOK AT INDUSTRY CLUSTERS AND OTHER INDUSTRIES IMPORTANT TO THE REGION'S ECONOMY

This section looks at industry clusters and sectors that are important to the region's economy, but are not considered a part of the economic base. Their inclusion here reflects the broader interpretation of the economic base seen in some of the past economic base reports.<sup>5</sup> For the San Joaquin Valley Region, this will include the Food Chain cluster, Construction, Manufacturing Value Chain, Health Sciences & Services and All Government.

### THE FOOD CHAIN

California is a leader in the global Food Chain. Global market forces are transforming California's Food Chain, as local firms become multinational firms and foreign firms produce locally in order to efficiently tailor products for local markets. As globalization has increased competition, it has also brought new opportunities in the form of new products for the state's consumers and new markets for the state's firms. Technology's role has been central as an enabler and driver in these global processes through advances in production, packaging, shipping and communications.<sup>6</sup> Locally, California companies are adopting innovative new processes in order to meet consumers' changing demands, such as the increasing demand for high quality convenience foods and organic products, while remaining competitive.

The Food Chain<sup>7</sup> cluster is composed of four components; Production, Support, Processing and Distribution. This cluster provides almost 20% of all jobs in the San Joaquin Valley Region, or over 256,900 jobs in 2005. From 2001 to 2005, the Food Chain cluster experienced job growth of over 6,800 jobs, an increase of almost 3%. Employment had declined from 2001 to 2004, but grew by about 10,000 jobs in 2005.

Most of the jobs within the Food Chain cluster are in Support industries, providing 42% of the cluster's jobs, followed by Production (29%) and Processing (22%). Distribution is the smallest component in the cluster, with just 7% of the jobs. The distribution of jobs within the Food Chain cluster changed slightly from 2001 to 2005, as seen in **Figure 36**.

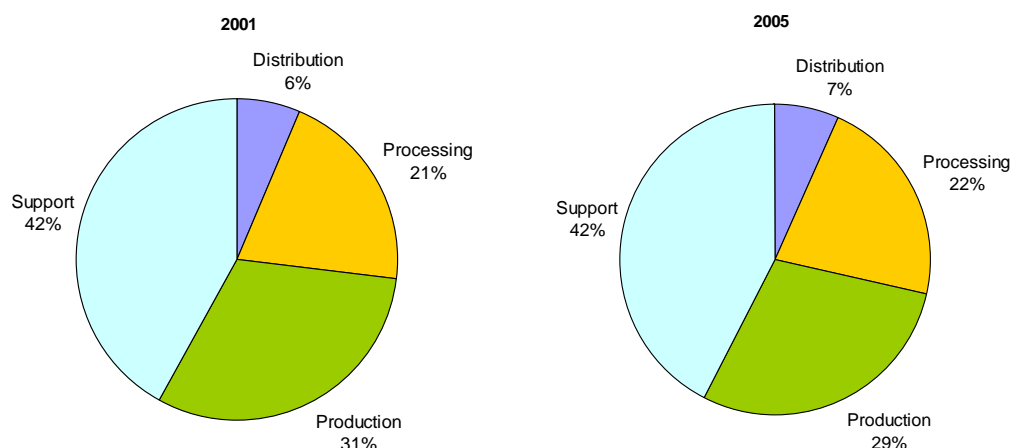
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<sup>5</sup> The economic base reports released in 2006 used a broader definition of the economic base than the traditional one, as did the reports released in 2004 for the rural regions.

<sup>6</sup> Excerpts from the report, *California's Food Chain at Work*, prepared for the California Economic Strategy Panel by Collaborative Economics, Inc.

<sup>7</sup> This cluster includes some of the industries presented in the Resource Based component of the economic base.

**Figure 36 Employment Distribution 2001 & 2005**



From 2001-2005, three of the four cluster components reported job gains; Support grew by almost 4,500 jobs (up 4.3%), Processing grew by about 4,400 jobs (up 8.5%), and Distribution grew by almost 1,200 jobs (up 7.5%). During this same period, Production experienced the loss of over 3,200 jobs.

### Size of Business

From 2001 to 2005, the percentage of Food Chain businesses with fewer than 100 employees remained fairly constant, at 93.7% in 2001 and 93.6% in 2005. These businesses provided 31.4% of the Food Chain employment in 2001, and 31.7% in 2005. In contrast, only 6.4% of the businesses in the Food Chain employ 100 or more workers, and these businesses provide 68.4% of the Food Chain jobs.

**Figure 37 Distribution of Firms and Jobs in the Food Chain by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	47.4%	2.2%
5-9	16.8%	3.4%
10-19	13.4%	5.6%
20-49	11.2%	10.2%
50-99	4.8%	10.2%
100-249	3.5%	16.4%
250-499	1.8%	18.5%
500+	1.1%	33.5%

Businesses with fewer than 50 employees provided 21.4% of all Food Chain jobs in 2005; in comparison, businesses with fewer than 50 employees provided 44.5% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided just 5.6% of all Food Chain jobs, compared to 14.2% of all private industry jobs.

Production reported the highest percentage of businesses with fewer than 100 employees, at 98.1%, followed by Distribution at 95%. Processing reported the lowest percentage, at 75.7%.

The percentage of Food Chain firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 38**.

**Figure 38** provides a summary of facts for the Food Chain cluster components.

**Figure 38 Food Chain**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
Production	74,600	-4.2%	5.1	\$ 22,091	98.1%	95.3%
Support	109,300	4.3%	5.3	\$ 18,667	84.4%	75.7%
Processing	56,200	8.5%	3.3	\$ 38,040	75.7%	65.4%
Distribution	16,800	7.5%	1.4	\$ 40,879	95.0%	89.4%
<b>Food Chain Totals</b>	<b>256,900</b>	<b>2.7%</b>	<b>4.0</b>	<b>\$ 25,373</b>	<b>93.6%</b>	<b>88.8%</b>

\* Employment rounded to nearest 100. Total employment may not equal sum of components due to rounding or suppression.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

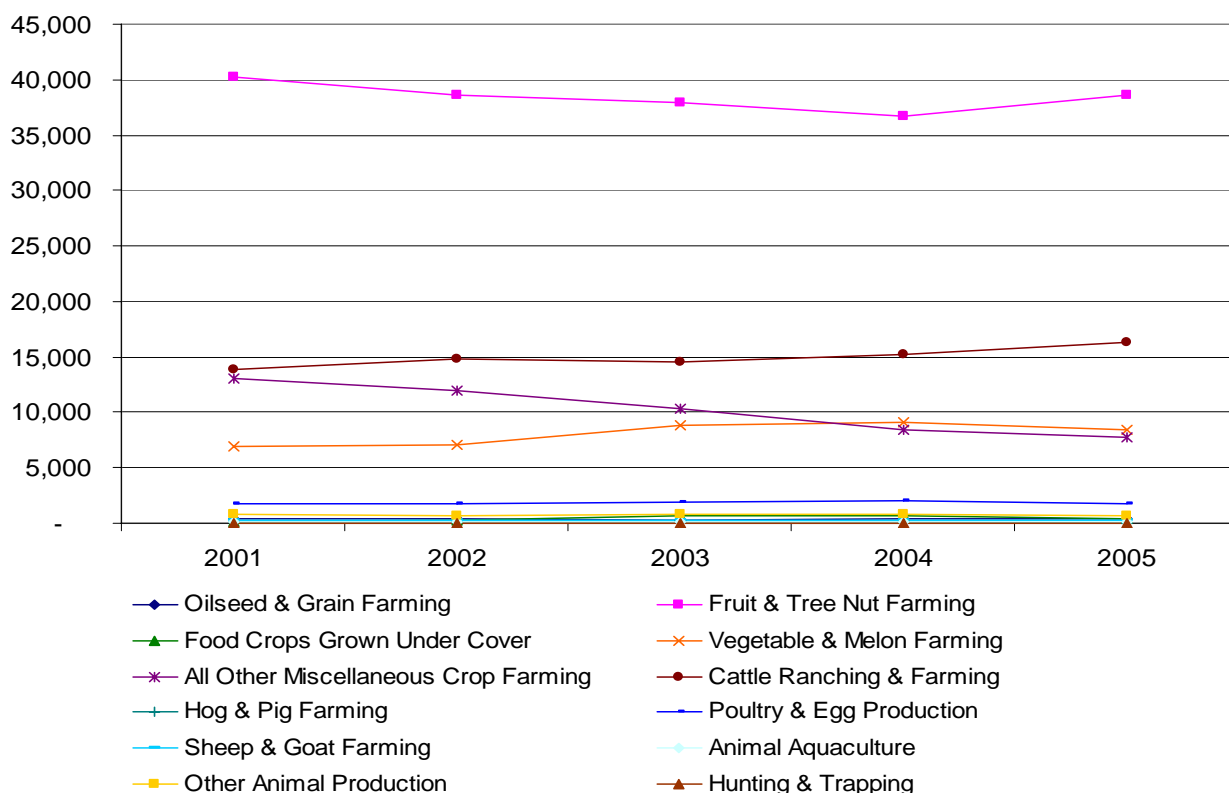
## Production

The Production component of the Food Chain cluster is the second largest, with over 74,600 jobs in 2005. Within Production, the largest industries are Fruit & Tree Nut Farming, followed by Cattle Ranching & Farming and Vegetable & Melon Farming. Although Production as a whole reported job losses from 2001 to 2005 of over 3,200 (- 4.2%), some industries within Production reported job gains. These gains were led by Cattle Ranching & Farming, up almost 2,400 jobs (+17.1%), and Vegetable & Melon Farming, up almost 1,500 jobs (+20.8%).

The job losses in Production were led by All Other Misc. Crop Farming, down over 5,300 jobs (-12.3%), followed by Fruit & Tree Nut Farming losses, down almost 1,700 jobs (-4.1%).

**Figure 39** graphs the employment change for the Production industries from 2001 to 2005. More information on each industry's size and growth are provided in **Figure 40**.

**Figure 39 Production Industries Employment Growth 2001-2005**



The San Joaquin Valley Region has a high concentration of Production jobs, with an LQ of 5.1. Within Production, the industry with the highest concentration was Hog & Pig Farming, (10.7 LQ), although very small in employment size. Second highest in concentration, Cattle Ranching & Farming (8.4 LQ) is also the second largest industry within Production. The concentration for each Production industry is provided in **Figure 40**.

Overall, Production reported an average annual wage of \$22,091 in 2005, which is lower than the region's average annual wage for all private industries of \$30,432. Within Production, Vegetable & Melon Farming reported the highest average wage, at \$26,200, while Hunting & Trapping reported the lowest, at \$14,376.

**Figure 40** provides a summary of economic facts for the Food Chain Production industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level.)

**Figure 40 Food Chain – Production**

NAICS	Production	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
1111	Oilseed & Grain Farming	500	3.6%	2.1	\$ 22,923	98.8%	97.7%
1113	Fruit & Tree Nut Farming	38,600	-4.1%	5.3	\$ 19,258	97.9%	95.0%
11141	Food Crops Grown Under Cover	400	87.6%	0.9	\$ 18,795	Not Available	Not Available
11193	Sugarcane Farming	0	100.0%	N/A	N/A	Not Available	Not Available
111991	Sugar Beet Farming	S	-41.3%	2.2	\$ 15,975	Not Available	Not Available
111992	Peanut Farming	0	N/A	N/A	N/A	Not Available	Not Available
1112	Vegetable & Melon Farming	8,400	20.8%	2.9	\$ 26,200	94.6%	86.3%
111998	All Other Misc. Crop Farming	7,700	-40.9%	6.4	\$ 22,607	Not Available	Not Available
1121	Cattle Ranching & Farming	16,300	17.1%	8.4	\$ 26,089	99.4%	97.5%
1122	Hog & Pig Farming	100	-56.5%	10.7	\$ 20,586	100.0%	100.0%
1123	Poultry & Egg Production	1,700	-0.9%	5.8	\$ 25,651	96.6%	93.1%
1124	Sheep & Goat Farming	300	-0.8%	7.2	\$ 17,387	100.0%	100.0%
1125	Animal Aquaculture	100	-7.3%	1.6	\$ 21,911	100.0%	100.0%
1129	Other Animal Production	600	-16.0%	3.7	\$ 25,094	100.0%	98.9%
1141	Fishing	0	100.0%	N/A	N/A	N/A	N/A
1142	Hunting and Trapping	< 50	0.0%	2.3	\$ 14,376	100.0%	100.0%
	<b>Production Totals, Non-suppressed***</b>	<b>74,600</b>	<b>-4.2%</b>	<b>5.1</b>	<b>\$ 22,091</b>	<b>98.1%</b>	<b>95.3%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

## Support

The Support component of the Food Chain cluster is the largest component, with almost 109,300 jobs in 2005. Within Support, by far the largest industry is Support Activities for Crop Production, with almost 96,600 jobs. This industry grew by almost 4% from 2001 to 2005, adding almost 3,700 jobs. A distant second in size, the Farm & Garden Machinery & Equipment Merchant Wholesalers industry reported over 2,500 jobs in 2005, representing a 10.7% increase from 2001.

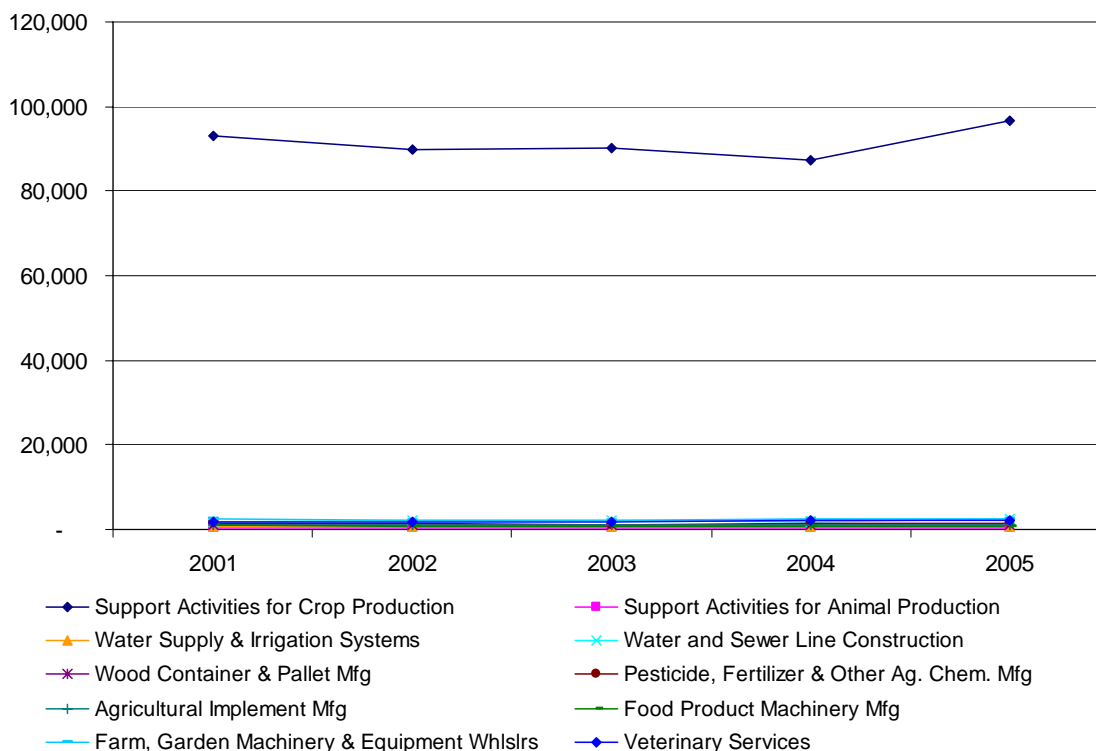
From 2001 to 2005, the fastest growing Support industry (largest percentage increase in jobs) was Water & Sewer Line Construction, increasing by 28.6% (a 6.5% AAGR). This was followed by Veterinary Services, increasing by 20.8% (a 4.8% AAGR). Both of these industries are relatively small, only providing about 2,000 jobs each.

The largest number of jobs lost during this period was reported by Wood Container & Pallet Manufacturing, down over 200 jobs. While this represents a loss of 20% of the employment in this industry, the number of jobs lost was very small for the region.



**Figure 41** graphs the employment change for the Support industries from 2001 to 2005; however, since the largest of these industries provides over 88% of the jobs in the Support sector, change for the other industries is not easily seen. Better insight may be gained by referring to the employment and growth data provided in **Figure 42**.

**Figure 41 Support Industries Employment Growth 2001-2005**



The San Joaquin Valley Region has a high concentration of Support jobs, compared to the statewide level, with an LQ of 5.3. Within Support, concentration is highest in Support Activities for Crop Production (6.8 LQ), followed by Pesticide, Fertilizer & Other Agricultural Chemicals Manufacturing (6.0 LQ).

Overall, Support reported an average annual wage of \$18,667 in 2005, which is significantly lower than the region's average annual wage for all private industries of \$30,432. This low average is due to the large number of jobs in Support Activities for Crop Production, which represents over 88% of Support jobs and pays the least, at \$15,916. A number of industries within Support pay much higher than the region's average. The four highest paying industries in Support are Water & Sewer Line & Related Construction, paying an average of \$48,353 annually, followed by Food Product Machinery Manufacturing (\$47,585); Farm, Garden Machinery & Equipment Wholesalers (\$43,909); and, Agricultural Implement Manufacturing (\$41,499).

**Figure 42** provides a summary of economic facts for the Food Chain Support industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level.)

**Figure 42 Food Chain - Support**

NAICS	Support	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
1151	Support Activities for Crop Production	96,600	3.9%	6.8	\$15,916	83.2%	73.9%
1152	Support Activities for Animal Production	500	-6.1%	1.8	\$32,085	100.0%	100.0%
22131	Water Supply & Irrigation Systems	600	-2.5%	1.7	\$39,223	Not Available	Not Available
23711	Water & Sewer Line & Rel. Construction	2,500	28.6%	1.5	\$48,353	Not Available	Not Available
32192	Wood Container & Pallet Mfg	1,000	-20.0%	2.4	\$24,016	Not Available	Not Available
3253	Pesticide, Fertilizer & Other Ag.Chem.Mfg	1,600	19.1%	6.0	\$39,744	94.6%	89.2%
33311	Agricultural Implement Mfg	1,100	-9.5%	5.6	\$41,499	Not Available	Not Available
333294	Food Product Machinery Mfg	700	-24.1%	3.5	\$47,585	Not Available	Not Available
42382	Farm, Garden Machinery & Equip. Whslrs	2,600	10.7%	4.7	\$43,909	Not Available	Not Available
54194	Veterinary Services	2,100	20.8%	0.9	\$29,204	Not Available	Not Available
	<b>Support Totals</b>	<b>109,300</b>	<b>4.3%</b>	<b>5.3</b>	<b>\$18,667</b>	<b>84.4%</b>	<b>75.7%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Processing

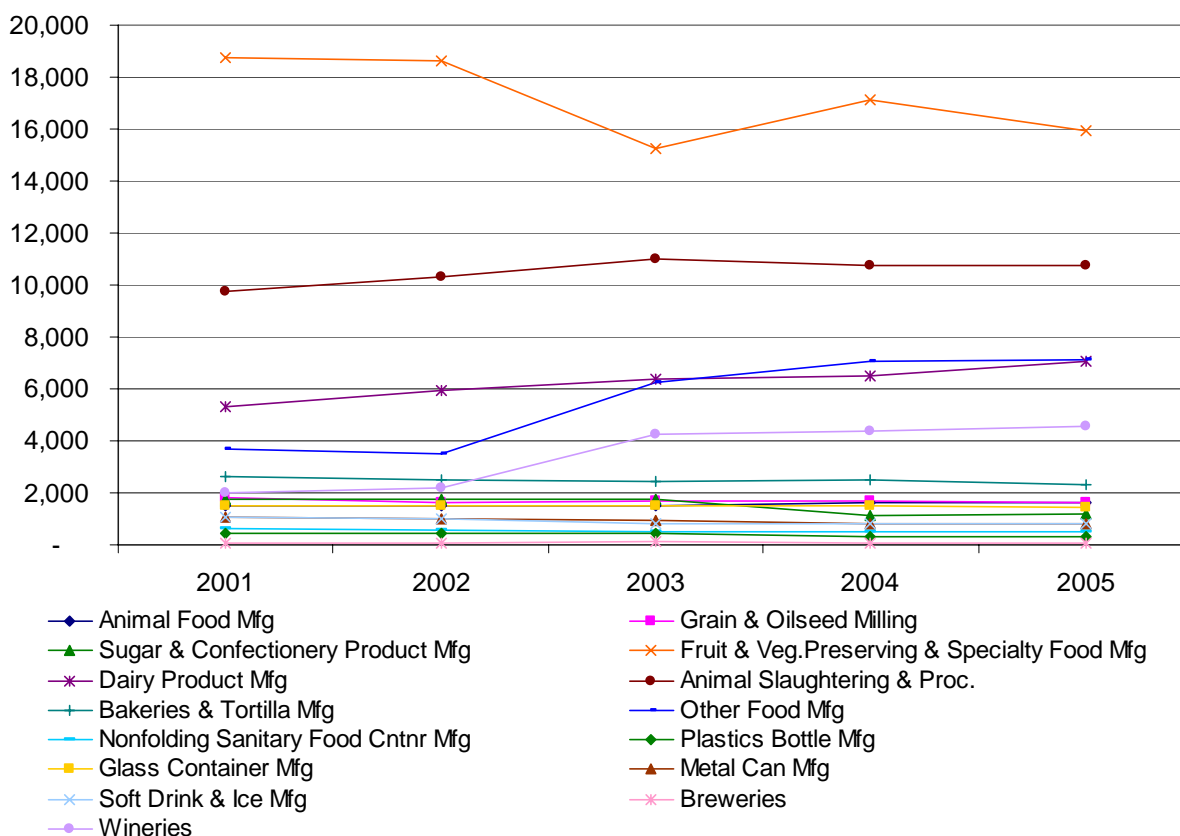
The Processing component of the Food Chain cluster is the third largest component, with over 56,200 jobs, and reported overall job growth of 8.5%, adding over 4,400 jobs from 2001 to 2005. Within Processing, the largest industry is Fruit & Vegetable Preserving & Specialty Food Manufacturing, with almost 16,000 jobs in 2005, followed by Animal Slaughtering & Processing, with almost 10,800 jobs. Within Fruit & Vegetable Preserving & Specialty Food Manufacturing, the most jobs are found in Fruit & Vegetable Canning (almost 7,900 jobs in 2005), although that industry reported job losses of over 29% for the period. Within Animal Slaughtering & Processing, the most jobs are found in Poultry Processing (almost 7,300 jobs).

The largest number of jobs gained in Processing, for the period 2001 to 2005, was in Other Food Manufacturing, with a gain of 3,400 jobs. Other Food Manufacturing was also the fastest growing industry, up 92%. The second largest number of jobs gained was reported by Wineries, with a gain of almost 2,600 jobs. The Wineries industry was the fastest growing, with an increase of 129.4% from 2001 to 2005.

The job losses in Processing were led by Fruit & Vegetable Preserving & Specialty Food Manufacturing, which experienced a loss of 2,800 jobs from 2001 to 2005, even though it is the largest industry in Processing.

**Figure 43** graphs the employment change for the Processing industries from 2001 to 2005. More information on each industry's size and growth are provided in **Figure 44**.

**Figure 43 Processing Industries Employment Growth 2001-2005**



The San Joaquin Valley Region has a high concentration of Processing jobs, with an LQ of 3.3. Within Processing, the industry with the highest concentration was Glass Container Manufacturing (7.0 LQ). Second highest in concentration, Nonfolding Sanitary Food Container Manufacturing (6.6 LQ) is small in employment size, with just over 500 jobs in 2005. The concentration for each Production industry is provided in **Figure 44**.

Overall, Processing reported an average annual wage of \$38,040 in 2005, which is higher than the region's average annual wage for all private industries of \$30,432. Within Processing, Metal Can Manufacturing reported the highest average wage, at \$58,668, while Breweries reported the lowest, at \$17,390, well below the region's average of \$30,432.

**Figure 44** provides a summary of economic facts for the Food Chain Processing industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level.)

**Figure 44 Food Chain - Processing**

NAICS	Processing	2005 Emplmt*	2001-2005 Growth	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
3111	Animal Food Manufacturing	1,600	6.5%	5.1	\$ 44,735	93.4%	83.6%
3112	Grain & Oilseed Milling	1,600	-10.5%	3.9	\$ 55,754	80.8%	65.4%
3113	Sugar & Confectionery Product Mfg	1,200	-34.1%	1.7	\$ 37,851	83.3%	66.7%
3114	Fruit & Veg. Presrv & Spec. Food Mfg	16,000	-14.9%	5.3	\$ 32,911	58.1%	48.6%
3115	Dairy Product Manufacturing	7,100	33.6%	5.0	\$ 48,790	51.1%	33.3%
3116	Animal Slaughtering & Processing	10,800	10.3%	6.1	\$ 29,743	70.6%	62.7%
3117	Seafood Product Prep & Packaging	0	N/A	N/A	N/A	N/A	N/A
3118	Bakeries & Tortilla Mfg	2,300	-11.1%	0.7	\$ 33,317	94.6%	87.4%
3119	Other Food Manufacturing	7,100	91.9%	3.8	\$ 31,034	72.2%	53.7%
322215	Nonfolding Sanitary Food Contnr Mfg	500	-11.1%	6.6	\$ 38,372	Not Available	Not Available
32616	Plastics Bottle Manufacturing	300	-23.1%	0.9	\$ 40,882	Not Available	Not Available
327213	Glass Container Manufacturing	1,400	-4.0%	7.0	\$ 55,621	Not Available	Not Available
332115	Crown and Closure Manufacturing	S	4.0%	11.3	\$ 52,822	Not Available	Not Available
332431	Metal Can Manufacturing	800	-23.2%	3.5	\$ 58,668	Not Available	Not Available
31211	Soft Drink & Ice Manufacturing	800	-25.3%	1.0	\$ 37,258	Not Available	Not Available
31212	Breweries	100	26.1%	0.3	\$ 17,390	Not Available	Not Available
31213	Wineries	4,600	129.4%	2.1	\$ 54,029	Not Available	Not Available
31214	Distilleries	S	N/A	6.1	\$ 46,604	Not Available	Not Available
	<b>Processing Totals, Non-suppressed***</b>	<b>56,500</b>	<b>8.5%</b>	<b>3.3</b>	<b>\$ 38,040</b>	<b>75.7%</b>	<b>65.4%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

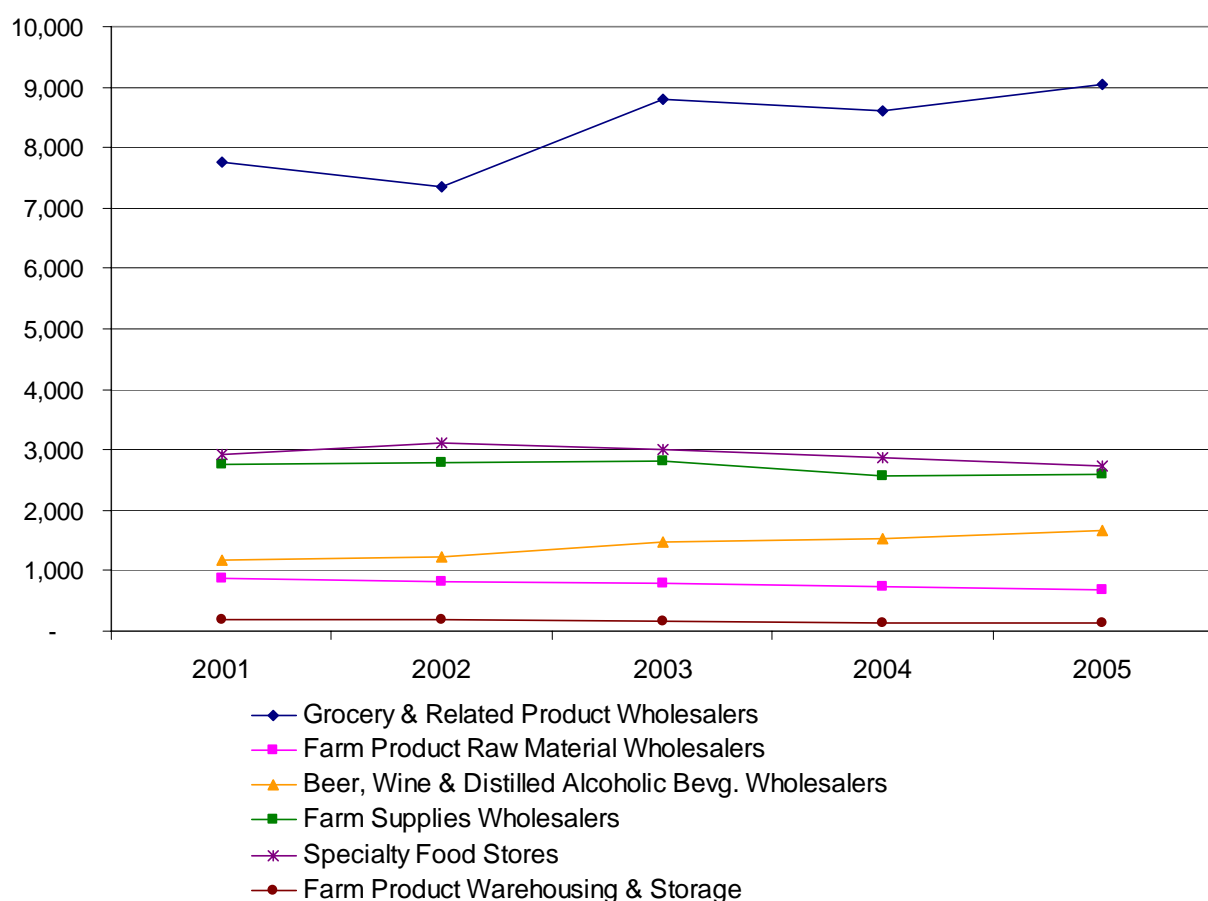
\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

## Distribution

Distribution is the smallest component of the Food Chain cluster, with over 16,800 jobs in 2005. From 2001 to 2005, Distribution grew by almost 1,200 jobs, or 7.5%. The largest industry within Distribution is Grocery & Related Product Wholesalers, with over 9,000 jobs in 2005. Grocery & Related Product Wholesalers gained the largest number of jobs from 2001 to 2005, adding almost 1,300 jobs. It reported the second fastest growth rate during this period, up 16.5%, behind Beer, Wine & Distilled Alcoholic Beverage Merchant Wholesalers, which reported growth of 41.2%. The other Distribution industries reported job losses for the period.

**Figure 45** graphs the employment change for the Distribution industries from 2001 to 2005. More information on each industry's size and growth are provided in **Figure 46**.

**Figure 45 Distribution Industries Employment 2001-2005**



The San Joaquin Valley Region has a somewhat higher concentration of Distribution jobs than found statewide, with an LQ of 1.4, although this is lower than the other Food Chain components. Within Distribution, the industries with the highest concentrations were Farm Product Raw Material Merchant Wholesalers, (5.0 LQ) and Farm Supplies Merchant Wholesalers (4.6). The region has a strong competitive advantage in these industries. The concentration for each Distribution industry is provided in **Figure 46**.

Overall, Distribution reported an average annual wage of \$40,879 in 2005, which is higher than the region's average annual wage for all private industries of \$30,432. Within Distribution, Farm Supplies Merchant Wholesalers reported the highest average wage, at \$49,488, while Specialty Food Stores reported the lowest, at \$22,269.

**Figure 46** provides a summary of economic facts for the Food Chain Distribution industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level.)

**Figure 46 Food Chain - Distribution**

NAICS	Distribution	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 100 employees
4244	Grocery & Related Product Wholesalers	9,000	16.5%	1.3	\$ 42,482	91.8%	86.1%
4245	Farm Product Raw Material Whlsrs	700	-22.4%	5.0	\$ 43,832	100.0%	94.9%
4248	Beer, Wine, Distilled Alcoholic Bevg. Whlsrs	1,700	41.2%	1.5	\$ 49,039	86.2%	62.1%
42491	Farm Supplies Merchant Wholesalers	2,600	-5.8%	4.6	\$ 49,488	Not Available	Not Available
4452	Specialty Food Stores	2,700	-6.7%	0.9	\$ 22,269	98.9%	95.4%
49313	Farm Product Warehousing & Storage	100	-20.8%	3.6	\$ 31,181	Not Available	Not Available
	<b>Distribution Totals</b>	<b>16,800</b>	<b>7.5%</b>	<b>1.4</b>	<b>\$ 40,879</b>	<b>95.0%</b>	<b>89.4%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

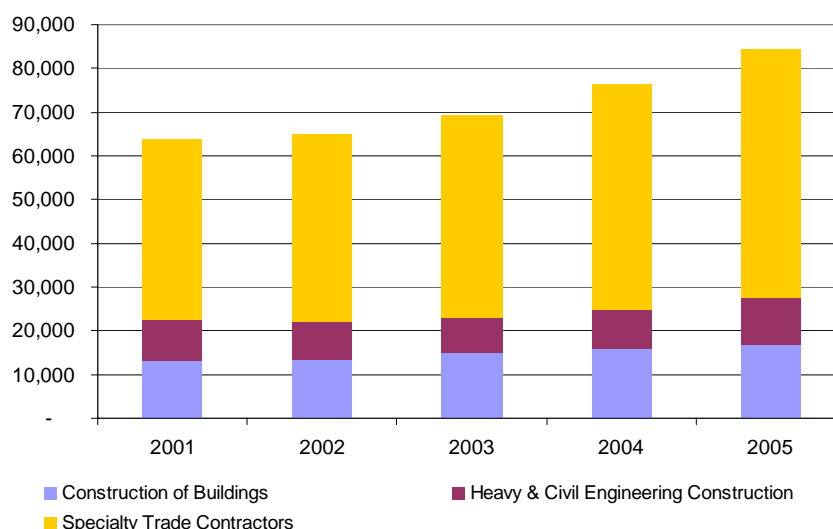
\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## CONSTRUCTION

The Construction industry provides 6.5% of the jobs for the San Joaquin Valley Region, with almost 84,400 jobs in 2005. From 2001 to 2005, employment increased by 32.2%, or over 20,500 jobs.

All three sub-sectors reported growth during this period. Specialty Trade Contractors added the most jobs, with an increase of over 15,200 jobs, up 36.7%; Construction of Buildings grew by almost 3,800 jobs, or 28.8%; and, Heavy and Civil Engineering Construction grew by 1,500 jobs, or 16.5%.

**Figure 47 Construction Sub-sector Employment 2001-2005**



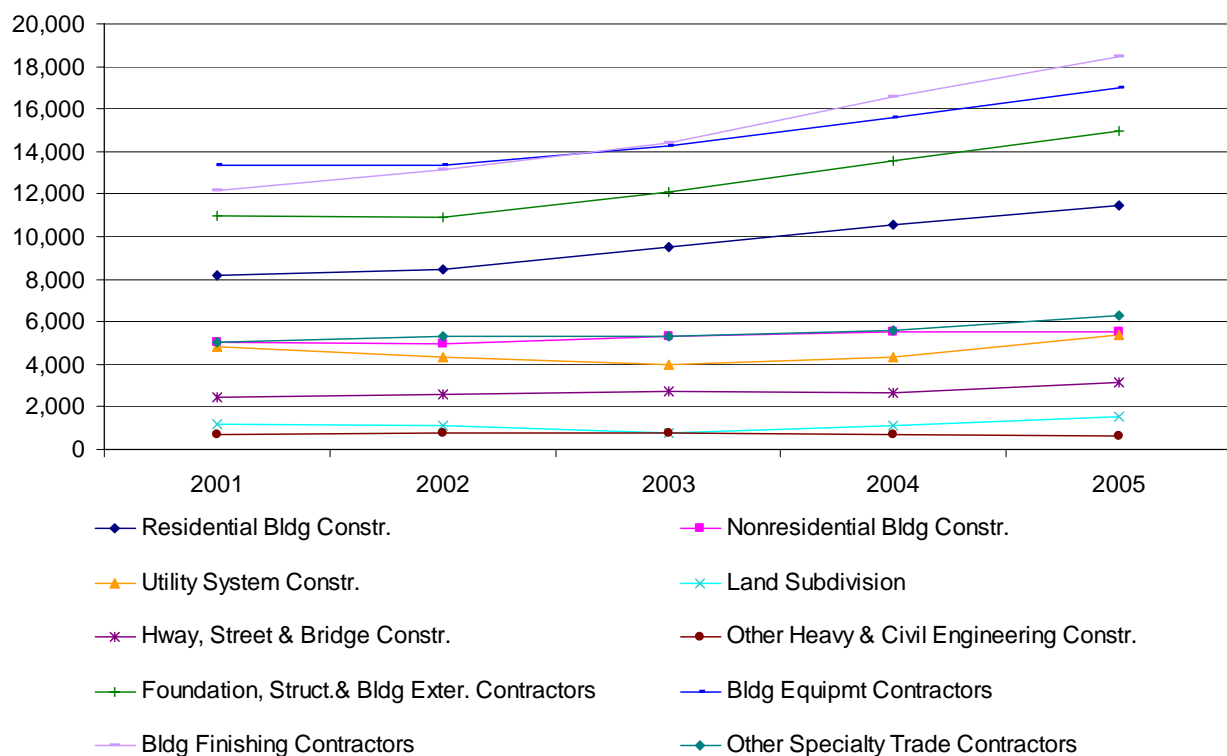
Within Construction of Buildings, both Residential and Nonresidential Building Construction reported job gains from 2001-2005. Residential Building Construction grew by over 3,300, a gain of 40.8% (led by New Single-Family Housing Construction) and Nonresidential Building Construction grew by almost 500 jobs, or 9.4%.

Within Heavy & Civil Engineering Construction, the Highway, Street & Bridge Construction industry added the most jobs, with a gain of almost 700 jobs (up 27.5%) from 2001 to 2005; Utility System Construction added almost 600 jobs (up 11.6%); and, Land Subdivision added almost 400 jobs (up 30.7%). Only Other Heavy & Civil Engineering Construction reported job losses during this period, down less than 100 jobs (-12.3%).

Within Specialty Trade Contractors, the largest industry is Building Finishing Contractors (led by Drywall & Insulation Contractors). Building Finishing Contractors was also the fastest growing in this sub-sector (up 52.2%) and added the most jobs (over 6,300).

**Figure 48** shows employment growth for the Construction industries from 2001 to 2005.

**Figure 48 Construction Industries Employment 2001-2005**



The San Joaquin Valley Region has a slightly higher concentration of Construction jobs than found statewide, with an LQ of 1.1. Within Construction, the industry with the highest concentration was Utility System Construction (1.8 LQ). The concentration for each Construction industry is provided in **Figure 49**.

Overall, Construction reported an average annual wage of \$38,682 in 2005, which is higher than the region's average annual wage for all private industries of \$30,432. Within Construction, the Land Subdivision industry reported the highest average wage, at \$61,648, while the Foundation, Structure & Building Exterior Contractors industry reported the lowest, at \$31,519, which was still slightly higher than the region's overall average.

## Size of Business

From 2001 to 2005, the percentage of Construction industry businesses with fewer than 100 employees decreased only slightly, from 98.7% in 2001 to 98.1% in 2005. These businesses provided 78.3% of Construction employment in 2001, and 73.1% in 2005. In contrast, only 1.9% of the businesses in Construction employ 100 or more workers, and these businesses provide 26.9% of Construction jobs.

**Figure 49 Distribution of Firms and Jobs in Construction by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	47.4%	5.6%
5-9	20.1%	9.5%
10-19	15.3%	14.5%
20-49	11.3%	24.3%
50-99	4.0%	19.1%
100-249	1.5%	15.6%
250-499	0.3%	6.9%
500+	0.1%	4.4%

Businesses with fewer than 50 employees provided 54% of all Construction jobs in 2005; in comparison, businesses with fewer than 50 employees provided 44.5% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided just over 15% of all Construction jobs, compared to 14.2% of all private industry jobs.

Other Specialty Trade Contractors reported the highest percentage of businesses with fewer than 100 employees, at 99.5%, followed by Residential Building Construction at 99.2%. Highway, Street & Bridge Construction reported the lowest percentage, at 91.8%. The percentage of Construction firms with fewer than 100 employees and fewer than 50 employees, by industry, is included in **Figure 50**.

**Figure 50** provides a summary of economic facts for the Construction industries.

**Figure 50 Construction**

NAICS	Industry	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
2361	Residential Bldg Constr.	11,500	40.8%	0.9	\$ 41,583	99.2%	96.8%
2362	Nonresidential Bldg Constr.	5,500	9.4%	1.0	\$ 45,286	97.3%	93.2%
2371	Utility System Constr.	5,400	11.6%	1.8	\$ 52,072	95.0%	86.5%
2372	Land Subdivision	1,600	30.7%	1.1	\$ 61,648	93.2%	92.0%
2373	Highway, Street & Bridge Constr.	3,100	27.5%	1.3	\$ 58,470	91.8%	83.5%
2379	Other Heavy & Civil Engineering Constr.	600	-12.3%	0.7	\$ 46,811	97.6%	92.9%
2381	Foundation, Struct., Bldg Exter. Contractors	14,900	35.6%	1.1	\$ 31,519	97.4%	92.7%
2382	Bldg Equipmt Contractors	17,000	27.5%	1.0	\$ 40,227	98.2%	93.9%
2383	Bldg Finishing Contractors	18,500	52.2%	1.2	\$ 30,028	98.2%	93.8%
2389	Other Specialty Trade Contractors	6,300	26.3%	1.1	\$ 38,109	99.5%	96.3%

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.



## MANUFACTURING VALUE CHAIN

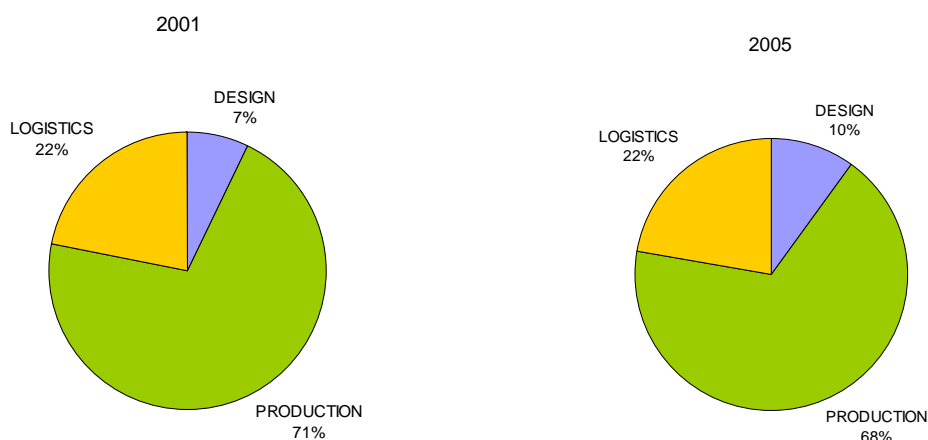
California's manufacturing industry has undergone a transformation. While traditional manufacturing (production) jobs have declined since the 1990's, job growth has occurred in the design and logistics (warehousing and delivery) phases of manufacturing. Improvements in production technology have increased production, as measured in gross domestic product, but have reduced the number of production jobs. At the same time, the "just in time" approach to supply and delivery is lowering warehousing costs and has increased the number and types of jobs in logistics.

The California Regional Economies Project calls this industry cluster the Manufacturing Value Chain. Manufacturing industries are important for innovation, high wages and exports. The design and logistics components of manufacturing are providing more middle and higher-level jobs that pay well and offer career development opportunities. By definition, the Manufacturing Value Chain includes some of the manufacturing industries discussed in the economic base analysis, under High Tech Manufacturing and Diversified Manufacturing, presented earlier in this report. This section of the report takes a look at a broader range of manufacturing activities in the region.

Manufacturing remains an important component of the San Joaquin Valley Region's economy. The Manufacturing Value Chain provides over 12% of the region's job, with over 160,300 jobs in 2005. From 2001 to 2005, this cluster grew by over 8,100 jobs, or 5.3%.

Within the Manufacturing Value Chain cluster, the percentage of jobs made up by each component has changed over time. In 2001, Design represented about 7% of the jobs within the cluster; as of 2005, Design represents 10% of the cluster. During this time, Logistics' share of the jobs in the cluster remained constant at 22%, while Production went from 71% of the cluster's jobs in 2001, to 68% in 2005. **Figure 51** illustrates these changes.

**Figure 51 Distribution of Jobs within the Manufacturing Value Chain**



Overall, the San Joaquin Valley Region's concentration of Manufacturing Value Chain cluster jobs (0.9 LQ) is slightly less than the statewide average; however, the region has a significantly higher concentration in several industries within the cluster, representing a strong competitive advantage in these areas. Not surprisingly, these are all related to Agriculture, and include Animal Slaughtering & Processing (6.1 LQ); Pesticide, Fertilizer, & Other Agricultural Chemical Manufacturing (6.0 LQ); Fruit & Vegetable Preserving & Specialty Food Manufacturing (5.3 LQ); Animal Food Manufacturing (5.1 LQ); and, Dairy Product Manufacturing (5.0 LQ).

The Manufacturing Value Chain cluster's average annual wage for the region in 2005 was \$39,083, up almost 17% from the 2001 average of \$33,460. Within the cluster, the component with the highest average annual wage is Design, with an average of \$41,303 in 2005. The average annual wage for Production was \$39,323 in 2005, and the average for Logistics was \$37,338 in 2005. All three components reported higher average annual wages for the region than the region's average wage for all private industry jobs, which was \$30,432 in 2005.

### Size of Business

From 2001 to 2005, the percentage of Manufacturing Value Chain businesses with fewer than 100 employees increased slightly, from 94.5% in 2001 to 94.8% in 2005. These businesses provided 41.5% of Manufacturing Value Chain employment in 2001, and 42% in 2005. In contrast, only 5.2% of the businesses in Manufacturing Value Chain employ 100 or more workers, and these businesses provide 58% of Manufacturing Value Chain jobs.

**Figure 52 Distribution of Firms and Jobs in Manufacturing Value Chain by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	44.1%	2.7%
5-9	18.4%	4.6%
10-19	15.0%	7.6%
20-49	12.0%	13.8%
50-99	5.2%	13.3%
100-249	3.4%	19.6%
250-499	1.1%	13.2%
500+	0.7%	25.2%

Businesses with fewer than 50 employees provided 28.7% of all Manufacturing Value Chain jobs in 2005; in comparison, businesses with fewer than 50 employees provided 44.5% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 7.3% of all Manufacturing Value Chain jobs, compared to 14.2% of all private industry jobs.

Design reported the highest percentage of businesses fewer than 100 employees, at 99.2%; Production reported the lowest percentage, at 89.4%. The percentage of Manufacturing Value Chain firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 53**.

**Figure 53** provides a summary of facts for the Manufacturing Value Chain cluster components.

**Figure 53 Manufacturing Value Chain**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
Design	16,200	50.1%	0.5	\$ 41,303	99.2%	97.3%
Production	106,200	0.4%	0.9	\$ 39,323	89.4%	81.0%
Logistics	35,500	7.0%	1.1	\$ 37,338	97.1%	92.7%
<b>Manufacturing Chain Totals</b>	<b>256,900</b>	<b>2.7%</b>	<b>4.0</b>	<b>\$ 25,373</b>	<b>93.6%</b>	<b>89.5%</b>

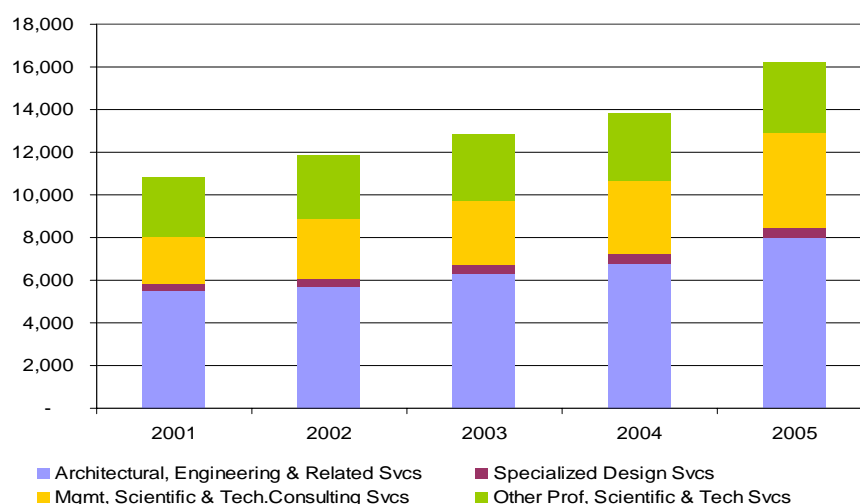
\* Employment rounded to nearest 100. Total employment may not equal sum of components due to rounding or suppression.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Design

The Design component of the Manufacturing Value Chain provided 16,200 jobs for the region in 2005, and grew by 5,400 jobs, or just over 50%, from 2001 to 2005. Within Design, the Architectural, Engineering & Related Services sub-sector provided the most jobs in 2005, at about 8,000 jobs, and reported the second highest rate of growth from 2001-2005, at 46.3%. Management, Scientific & Technical Consulting Services is the second largest industry in Design, with almost 4,500 jobs in 2005, and reported the highest rate of growth, at 102.5%.

**Figure 54 Design Employment 2001-2005**



The San Joaquin Valley Region has a lower concentration of Design jobs than found at the statewide level.

Overall, the average annual wage for the Design industries was \$41,303 in 2005; this was up from \$35,077 in 2001, an increase of 26%. Design jobs have a higher wage than for the Manufacturing Value Chain as a whole at \$39,083 in 2005, and are also higher than the region's average wage for all private industry jobs (\$30,432 in 2005). Within Design, the highest average annual wage was reported by Architectural, Engineering & Related Services, at \$51,805 in 2005.

**Figure 55** provides a summary of economic facts for the Design industries.

**Figure 55 Manufacturing Value Chain - Design**

NAICS	Industry	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
5413	Architect.,Engineering & Rel.Svcs	8,000	46.3%	0.6	\$ 51,805	98.8%	95.6%
5414	Specialized Design Svcs	500	23.2%	0.2	\$ 30,385	100.0%	100.0%
5416	Mgmt, Sci. & Tech.Consulting Svcs	4,500	102.5%	0.4	\$ 34,580	99.1%	97.9%
5419	Other Prof, Scientific & Tech Svcs	3,300	19.2%	0.7	\$ 26,422	100.0%	98.5%
	<b>Design Totals</b>	<b>16,200</b>	<b>50.1%</b>	<b>0.5</b>	<b>\$ 41,303</b>	<b>99.2%</b>	<b>97.3%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Production

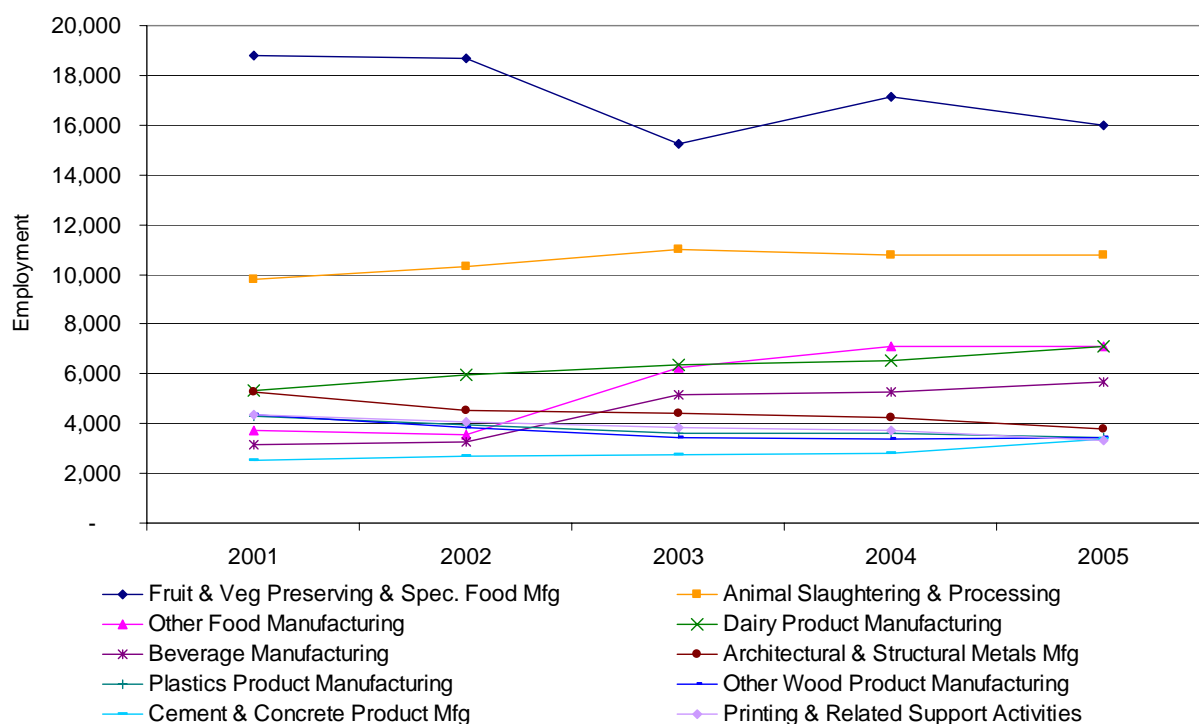
The Production component of the Manufacturing Value Chain provided 68% of the cluster's jobs in 2005, over 8% of all of the region's jobs, and grew by almost 400 jobs from 2001 to 2005. Although this represents growth of less than 1%, the state as a whole and all of the other regions experienced job losses in Production during this period.

Within Production, the largest industry is Fruit & Vegetable Preserving & Specialty Food Manufacturing, with almost 16,000 jobs in 2005; however, this industry reported job losses of 2,800 jobs, or almost 15%, from 2001 to 2005. The second largest industry is Animal Slaughtering & Processing, with almost 10,800 jobs in 2005; this industry reported job growth of 1,000 jobs, or 10%, from 2001 to 2005. These were followed in employment size by Other Food Manufacturing and Dairy Product Manufacturing, each with about 7,100 jobs in 2005; Other Food Manufacturing grew by almost 92% and Dairy Product Manufacturing grew by 33.6% from 2001 to 2005.

The fastest growing industries in Production, although very small in employment size, are Other Chemical Product & Preparation Manufacturing, up 214%, and Iron & Steel Mills & Ferroalloy Manufacturing, up 198%.

**Figure 56** shows the employment change for the ten largest industries within Production, from 2001 to 2005.

**Figure 56 Production Top Ten Industries Employment 2001-2005**



The San Joaquin Valley Region has a slightly lower concentration of Production jobs overall (0.9 LQ) than found at the statewide level; however, this masks the region's strong competitive advantage in a number of industries within Production. These include Animal Slaughtering & Processing (6.1 LQ); Pesticide, Fertilizer, & Other Agricultural Chemical Manufacturing (6.0 LQ); Fruit & Vegetable Preserving & Specialty Food Manufacturing (5.3 LQ); Animal Food Manufacturing (5.1 LQ); and, Dairy Product Manufacturing (5.0 LQ).

Overall, the average annual wage for the Production industries was \$39,323 in 2005, up from \$33,386 in 2001 (almost 18%), and is higher than the region's average wage for all private industry jobs (\$30,432 in 2005). Within Production, the highest average annual wage was reported by Lime & Gypsum Product Manufacturing, at \$84,926 in 2005, although extremely small in employment size. This was followed by Aerospace Product & Parts Manufacturing, at \$74,864; this industry employed over 1,200 in 2005.

**Figure 57** provides a summary of economic facts for the Production industries.

**Figure 57 Manufacturing Value Chain - Production**

NAICS	Industry	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
3111	Animal Food Mfg	1,600	6.5%	5.1	\$ 44,735	93.4%	83.6%
3112	Grain & Oilseed Milling	1,600	-10.5%	3.9	\$ 55,754	80.8%	65.4%
3113	Sugar & Confectionery Product Mfg	1,200	-34.1%	1.7	\$ 37,851	83.3%	66.7%
3114	Fruit & Veg Presrv. & Specialty Food Mfg	16,000	-14.9%	5.3	\$ 32,911	58.1%	48.6%
3115	Dairy Product Mfg	7,100	33.6%	5.0	\$ 48,790	51.1%	33.3%
3116	Animal Slaughtering & Processing	10,800	10.3%	6.1	\$ 29,743	70.6%	62.7%
3117	Seafood Product Prep & Packaging	0	N/A	N/A	N/A	N/A	N/A
3118	Bakeries & Tortilla Mfg	2,300	-11.1%	0.7	\$ 33,317	94.6%	87.4%
3119	Other Food Mfg	7,100	91.9%	3.8	\$ 31,034	72.2%	61.1%
3121	Beverage Mfg	5,700	79.5%	1.8	\$ 50,796	85.4%	80.5%
3122	Tobacco Mfg	0	N/A	N/A	N/A	N/A	N/A
3131	Fiber, Yarn & Thread Mills	S	-56.5%	1.1	\$ 16,148	100.0%	0.0%
3132	Fabric Mills	S	275.0%	0.1	\$ 43,825	100.0%	100.0%
3133	Textile, Fabric Finishing & Coating Mills	< 50	-89.7%	0.0	\$ 16,238	100.0%	100.0%
3141	Textile Furnishings Mills	400	28.6%	0.7	\$ 22,693	83.3%	83.3%
3149	Other Textile Product Mills	300	22.7%	0.5	\$ 24,716	100.0%	96.6%
3151	Apparel Knitting Mills	S	240.0%	0.0	\$ 12,779	100.0%	100.0%
3152	Cut & Sew Apparel Mfg	300	-38.7%	0.0	\$ 24,186	100.0%	95.7%
3159	Apparel Accessories & Other Apparel Mfg	0	-100.0%	0.0	N/A	N/A	N/A
3161	Leather & Hide Tanning & Finishing	100	-33.6%	3.8	\$ 65,898	100.0%	66.7%
3162	Footwear Mfg	S	-100.0%	0.0	N/A	100.0%	100.0%
3169	Other Leather & Allied Product Mfg	< 50	-75.2%	0.1	\$ 27,167	100.0%	100.0%
3211	Sawmills & Wood Preservation	200	2.9%	0.3	\$ 33,248	85.7%	85.7%
3212	Veneer, Plywood & Eng. Wood Prod. Mfg	1,100	66.1%	1.9	\$ 31,076	68.4%	52.6%
3219	Other Wood Product Mfg	3,400	-21.9%	1.7	\$ 30,522	93.9%	80.8%
3221	Pulp, Paper & Paperboard Mills	800	58.7%	2.9	\$ 46,764	75.0%	50.0%
3222	Converted Paper Product Mfg	3,100	-13.0%	1.5	\$ 47,886	65.1%	48.8%
3231	Printing & Related Support Activities	3,300	-23.0%	0.7	\$ 34,441	97.2%	93.4%
3241	Petroleum & Coal Products Mfg	1,300	83.5%	1.0	\$ 63,087	89.7%	82.1%
3251	Basic Chemical Mfg	100	29.6%	0.2	\$ 54,433	100.0%	100.0%
3252	Resin, Synth. Rubber, Artificial Fibers Mfg	S	-24.7%	0.3	\$ 31,335	100.0%	85.7%
3253	Pesticide, Fertilizer & Other Ag.Chem.Mfg	1,600	19.1%	6.0	\$ 39,744	94.6%	89.2%
3255	Paint, Coating, & Adhesive Mfg	200	22.2%	0.4	\$ 51,931	90.9%	90.9%
3256	Soap, Cleaning Compd, & Toilet Prep Mfg	100	-25.6%	0.1	\$ 30,025	100.0%	100.0%
3259	Other Chemical Product & Prep Mfg	300	214.1%	0.4	\$ 44,207	100.0%	94.1%
3261	Plastics Product Mfg	3,500	-19.6%	0.8	\$ 35,927	82.9%	65.8%
3262	Rubber Product Mfg	500	-24.4%	0.8	\$ 35,924	93.3%	80.0%
3271	Clay Product & Refractory Mfg	200	0.5%	0.4	\$ 26,983	87.5%	87.5%
3272	Glass & Glass Product Mfg	2,000	-15.5%	2.4	\$ 53,507	66.7%	53.3%
3273	Cement & Concrete Product Mfg	3,400	32.4%	1.7	\$ 48,913	88.2%	82.4%
3274	Lime & Gypsum Product Mfg	< 50	40.0%	0.1	\$ 84,926	100.0%	100.0%
3279	Other Nonmetallic Mineral Product Mfg	700	19.9%	1.2	\$ 46,477	87.5%	75.0%
3311	Iron & Steel Mills & Ferroalloy Mfg	300	197.7%	1.0	\$ 44,081	93.3%	93.3%
3312	Steel Product Mfg from Purchased Steel	100	-36.4%	0.2	\$ 50,620	100.0%	100.0%

3313	Alumina & Aluminum Production & Proc.	500	-6.4%	1.0	\$ 46,922	83.3%	66.7%
3314	Nonferrous Metal Production & Proc.	100	-68.9%	0.2	\$ 28,554	100.0%	100.0%
3315	Foundries	400	-30.0%	0.5	\$ 33,246	100.0%	82.4%
3321	Forging & Stamping	500	50.2%	0.6	\$ 46,403	72.7%	63.6%
3322	Cutlery & Handtool Mfg	100	57.0%	0.5	\$ 30,871	100.0%	90.9%
3323	Architectural & Structural Metals Mfg	3,800	-27.9%	1.2	\$ 40,392	97.2%	82.1%
3324	Boiler, Tank, & Shipping Container Mfg	1,300	0.6%	2.4	\$ 51,598	88.5%	65.4%
3325	Hardware Mfg	S	21.7%	0.2	\$ 40,434	100.0%	75.0%
3326	Spring & Wire Product Mfg	200	-64.6%	0.6	\$ 34,460	100.0%	90.9%
3327	Machine Shops Mfg	1,600	8.3%	0.5	\$ 36,192	100.0%	97.0%
3328	Coating, Engraving, Heat Treating Activ.	700	-19.8%	0.5	\$ 31,365	100.0%	96.4%
3329	Other Fabricated Metal Product Mfg	800	-42.2%	0.5	\$ 45,233	97.8%	91.3%
3331	Ag, Construction, & Mining Machinery Mfg	1,600	-9.4%	3.8	\$ 41,817	94.3%	85.7%
3332	Industrial Machinery Mfg	900	-23.0%	0.6	\$ 47,141	90.9%	81.8%
3333	Commercial & Svc Ind. Machinery Mfg	200	-68.8%	0.1	\$ 39,604	100.0%	100.0%
3334	Ventil., Heatg, Air-Cond & Refrig. Mfg	700	1.9%	1.3	\$ 37,851	78.6%	71.4%
3335	Metalworking Machinery Mfg	400	61.7%	0.4	\$ 39,655	100.0%	89.7%
3336	Engine, Turbine & Transmissn Eqpmt Mfg	S	843.5%	0.4	\$ 67,617	80.0%	80.0%
3339	Other General Purpose Machinery Mfg	1,900	-8.9%	1.2	\$ 42,674	93.4%	85.2%
3341	Computer & Peripheral Equipment Mfg	S	-22.9%	0.0	\$ 43,570	100.0%	100.0%
3342	Communications Equipment Mfg	S	33.8%	0.7	\$ 44,420	90.0%	90.0%
3343	Audio & Video Equipment Mfg	100	-10.8%	0.1	\$ 35,098	100.0%	100.0%
3344	Semiconductor & Other Elec Comp Mfg	500	-55.1%	0.1	\$ 35,903	88.2%	88.2%
3345	Navigational, & Electr. Instruments Mfg	900	81.9%	0.1	\$ 49,056	86.4%	72.7%
3346	Mfg & Reprod. Magnetic, Optical Media	S	-63.6%	0.0	\$ 62,649	100.0%	100.0%
3351	Electric Lighting Equipment M Mfg	200	4.1%	0.3	\$ 37,977	85.7%	71.4%
3352	Household Appliance Mfg	< 50	2.3%	0.2	\$ 23,759	100.0%	100.0%
3353	Electrical Equipment Mfg	100	-22.5%	0.2	\$ 35,858	100.0%	90.0%
3359	Other Elec. Equipmt & Component Mfg	200	-37.1%	0.1	\$ 25,078	100.0%	83.3%
3361	Motor Vehicle Mfg	S	-3.8%	0.1	\$ 46,766	100.0%	100.0%
3362	Motor Vehicle Body & Trailer Mfg	1,200	17.8%	1.4	\$ 34,754	97.3%	75.7%
3363	Motor Vehicle Parts Mfg	2,100	5.0%	1.2	\$ 40,843	83.3%	72.2%
3364	Aerospace Product & Parts Mfg	1,200	-20.4%	0.2	\$ 74,861	87.0%	82.6%
3371	Househld, Instit. Furn & Kit. Cabinet Mfg	2,700	4.5%	0.8	\$ 31,476	97.2%	92.2%
3372	Office Furniture (including Fixtures) Mfg	500	-11.6%	0.5	\$ 34,625	100.0%	93.1%
3379	Other Furniture Related Product Mfg	200	-1.6%	0.3	\$ 30,540	100.0%	77.8%
<b>Production Totals, Non-suppressed***</b>		<b>106,200</b>	<b>0.4%</b>	<b>0.9</b>	<b>\$ 39,323</b>	<b>89.4%</b>	<b>81.0%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

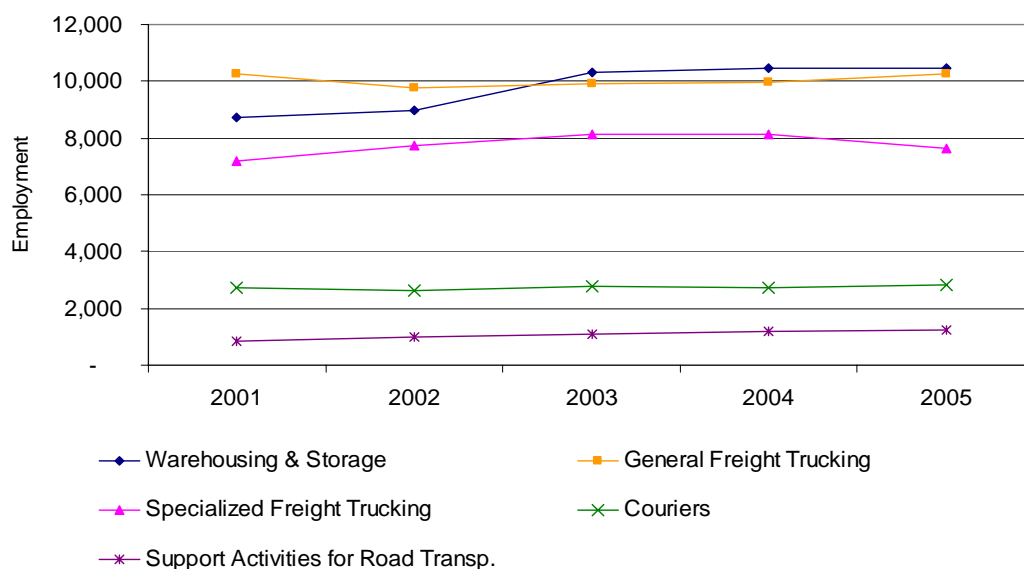
\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

## Logistics

The Logistics component of the Manufacturing Value Chain provided 22% of the cluster's jobs in 2005, and grew by about 2,300 jobs, or almost 3%, from 2001 to 2005. Within Logistics, the largest industry is Warehousing & Storage, providing almost 10,500 jobs in 2005, and reporting job growth of over 1,700 jobs (up almost 20%) from 2001 to 2005. The second largest industry is General Freight Trucking, with almost 10,300 jobs in 2005; however, this industry reported no growth for this period.

**Figure 58** shows the employment change for the five largest industries within Logistics, from 2001 to 2005.

**Figure 58 Logistics Top Five Industries Employment 2001-2005**



The San Joaquin Valley Region has a slightly higher concentration of Logistics jobs overall (1.1 LQ) than found at the statewide level. The Logistics industries with the highest concentrations include Support Activities for Rail Transportation (2.4 LQ) and Pipeline Transportation of Crude Oil (2.1 LQ), although these are both very small in employment size. The third highest concentration within Logistics was reported by Specialized Freight Trucking (2.0 LQ); this industry is larger in employment size, with over 7,600 jobs in 2005.

Overall, the average annual wage for the Logistics industries was \$37,338 in 2005; this was up from \$33,174 in 2001, an increase of 12.6%, and is higher than the region's average wage for all private industry jobs (\$30,432 in 2005).

**Figure 59** provides a summary of economic facts for the Logistics industries.



**Figure 59 Manufacturing Value Chain - Logistics**

NAICS	Industry	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees*	Firms with < 50 employees*
4811	Scheduled Air Transportation	800	35.4%	0.2	\$ 34,618	90.9%	72.7%
4812	Nonscheduled Air Transportation	100	1.7%	0.4	\$ 43,907	100.0%	100.0%
4821	Rail Transportation	S	N/A	0.3	\$ 17,819	S	S
4831	Deep Sea, Coastal Water Transp.	S	N/A	0.0	\$ 73,463	S	S
4832	Inland Water Transportation	S	1000.0%	0.3	\$ 32,007	S	S
4841	General Freight Trucking	10,300	-0.1%	1.7	\$ 38,745	97.8%	93.4%
4842	Specialized Freight Trucking	7,600	5.8%	2.0	\$ 35,544	97.9%	94.5%
4861	Pipeline Transportation of Crude Oil	100	-22.9%	2.1	\$ 75,850	S	S
4862	Pipeline Transp. of Natural Gas	S	9.7%	0.3	\$ 92,754	S	S
4869	Other Pipeline Transportation	< 50	-60.3%	0.4	\$ 87,305	100.0%	100.0%
4881	Support Activities for Air Transp.	700	-42.7%	0.5	\$ 40,065	98.2%	96.4%
4882	Support Activities for Rail Transp.	200	203.5%	2.4	\$ 35,804	100.0%	100.0%
4883	Support Activities for Water Transp.	100	-30.4%	0.1	\$ 76,310	85.7%	85.7%
4884	Support Activities for Road Transp.	1,300	53.4%	1.1	\$ 26,816	99.4%	98.3%
4885	Freight Transportation Arrangement	300	-24.8%	0.2	\$ 52,792	100.0%	98.0%
4889	Other Support Activities for Transp.	400	18.9%	1.1	\$ 25,794	100.0%	84.2%
4911	Postal Service	100	112.5%	1.4	\$ 25,086	100.0%	100.0%
4921	Couriers	2,800	4.1%	0.6	\$ 38,925	87.7%	78.5%
4922	Local Messengers & Local Delivery	3007	-17.1%	0.4	\$ 19,833	100.0%	95.5%
4931	Warehousing & Storage	10,500	19.7%	1.9	\$ 37,590	90.5%	81.5%
	<b>Logistics Totals, Non-suppressed****</b>	<b>35,500</b>	<b>7.0%</b>	<b>1.1</b>	<b>\$ 37,338</b>	<b>97.1%</b>	<b>92.7%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

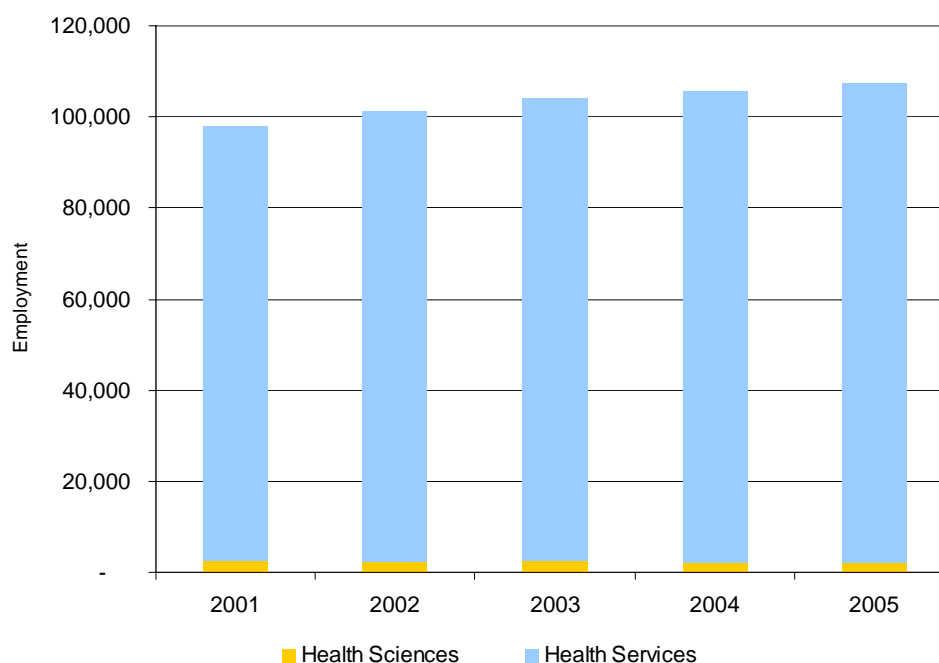
## HEALTH SCIENCES & SERVICES

The Health Sciences and Services cluster integrates two critical components of the health industry: Health sciences include activities focused on the development of a body of knowledge through scientific research in medicine, pharmacology, biology, drug discovery, genomics, and many other areas. Health services focus on the delivery of health care to patients; employment in this sector is comprised of medical and support staff in many settings, including hospitals, clinics, care facilities, at home, and on-line.

The Health Sciences & Services cluster includes health care services, such as offices of physicians, dentists, other health practitioners and other outpatient care facilities; hospitals; laboratories; home health care; nursing care and other residential care facilities. It also includes community, emergency and other relief services; vocational rehabilitation services; and, death care services. Within health sciences, the cluster includes pharmaceutical and medicine manufacturing; medical equipment and supplies manufacturing; and, scientific research and development (R&D) services.

In 2005, the Health Sciences & Services cluster provided 107,500 jobs, just over 8% of all jobs in the region, and experienced overall growth of almost 9,600 jobs, or 9.8%, from 2001 to 2005. The Health Services component of this cluster reported 105,200 jobs in 2005, and the Health Sciences component reported about 2,500 jobs.

**Figure 60 Health Sciences & Services Employment 2001-2005**



## Size of Business

From 2001 to 2005, the percentage of Health Sciences & Services businesses with fewer than 100 employees remained constant at 97.4%. These businesses provided 52.1% of Health Sciences & Services employment in 2001, and 50.6% in 2005. In contrast, only 2.6% of the businesses in Health Sciences & Services employ 100 or more workers, and these businesses provide 49.4% of Health Sciences & Services jobs.

**Figure 61 Distribution of Firms and Jobs in Health Sciences & Services by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment*
0-4	44.6%	5.0%
5-9	26.4%	9.8%
10-19	15.5%	11.6%
20-49	8.3%	13.8%
50-99	2.7%	10.4%
100-249	1.8%	14.8%
250-499	0.3%	6.5%
500+	0.4%	28.0%

\* Percentages do not add to 100% due to rounding.

Businesses with fewer than 50 employees provided 40.2% of all Health Sciences & Services jobs in 2005; in comparison, businesses with fewer than 50 employees provided 44.5% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 14.8% of all Health Sciences & Services jobs, and 14.2% of all private industry jobs.

Health Sciences reported 98.4% of its firms as having fewer than 100 employees in 2005; similarly, Health Services reported 97.4%. The percentage of Health Sciences & Services firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 62**.

**Figure 62** provides a summary of facts for the Health Sciences & Services cluster components.

**Figure 62 Health Sciences & Services**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
Health Sciences	2,200	-10.4%	0.1	\$ 41,152	98.4%	96.8%
Health Services	105,200	10.3%	1.1	\$ 40,960	97.4%	94.7%
<b>Health Sciences &amp; Svcs Totals</b>	<b>107,500</b>	<b>9.8%</b>	<b>0.9</b>	<b>\$ 40,964</b>	<b>97.4%</b>	<b>94.8%</b>

\* Employment rounded to nearest 100. Total employment may not equal sum of components due to rounding or suppression.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Health Sciences

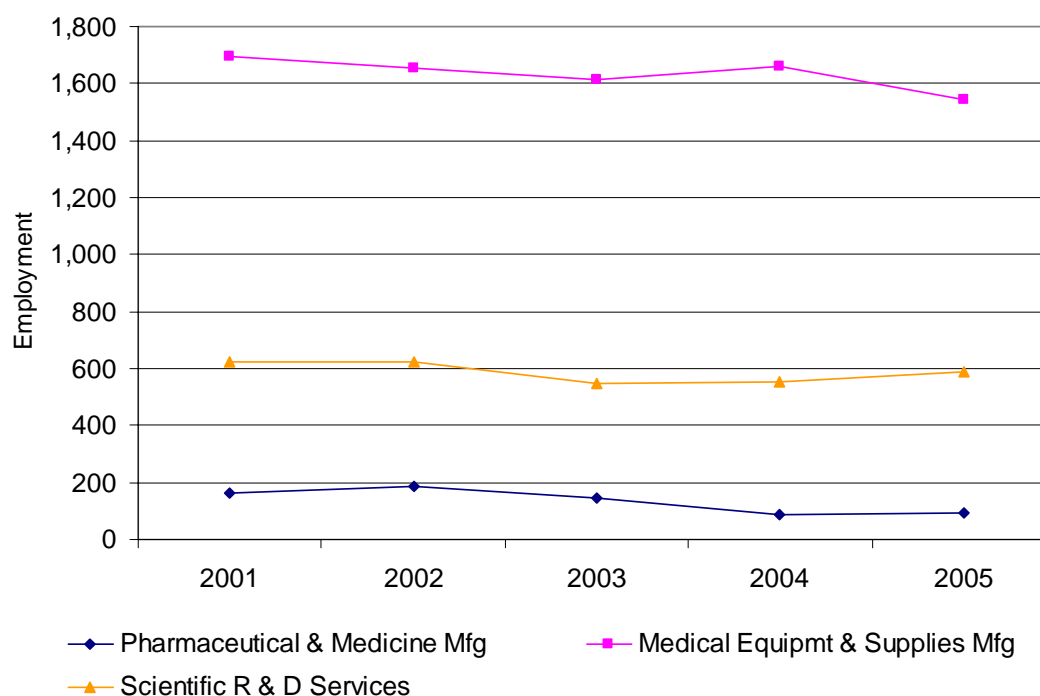
Health Sciences is the smaller of the two components in the region's Health Sciences & Services cluster, reporting just over 2,200 jobs in 2005. Health Sciences experienced job losses of almost 200 jobs from 2001 to 2005, a decrease of 10.4%.

The largest industry within Health Sciences is Medical Equipment & Supplies Manufacturing, which reported over 1,500 jobs in 2005; however, this industry lost 150 jobs from 2001 to 2005 (-8.9%). **Figure 63** shows employment change for the Health Sciences industries from 2001 to 2005.

The region has a much lower concentration of Health Sciences jobs than found at the statewide level (0.1 LQ), and does not have a competitive advantage in this area.

The average annual wage for Health Sciences was \$41,152 in 2005, up \$5,400 or 15% since 2001. Health Sciences jobs pay better than the regional average for all private industry of \$30,432.

**Figure 63 Health Sciences Industries Employment 2001-2005**



**Figure 64** provides a summary of economic facts for the Health Sciences industries.

**Figure 64 Health Sciences & Services Cluster - Health Sciences**

NAICS	Industry	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
3254	Pharmaceutical & Medicine Mfg	100	-43.6%	0.0	\$ 54,812	100.0%	100.0%
3391	Medical Equipment & Supplies Mfg	1,500	-8.9%	0.4	\$ 36,317	97.2%	96.3%
5417	Scientific R & D Svcs	600	-5.8%	0.1	\$ 51,692	100.0%	97.0%
	<b>Health Sciences Totals</b>	<b>2,200</b>	<b>-10.4%</b>	<b>0.1</b>	<b>\$ 41,152</b>	<b>98.4%</b>	<b>96.8%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Health Services

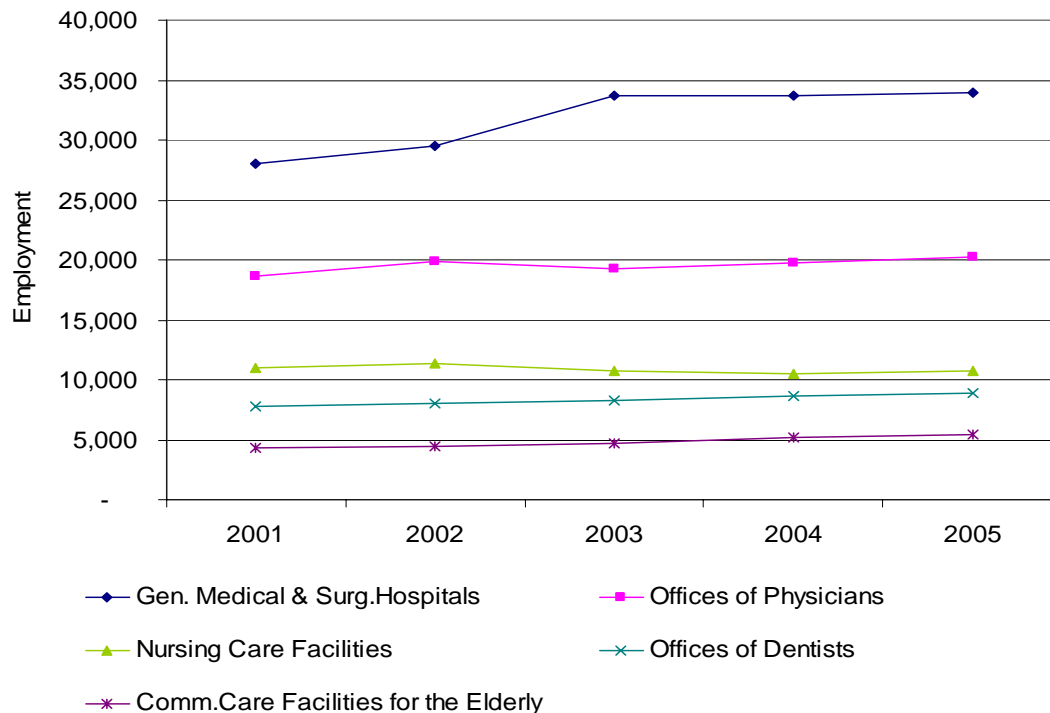
Health Services is the largest component of the Health Sciences & Services cluster. Health Services reported 105,200 jobs in 2005; this represented growth of just over 9,800 jobs since 2001, up 10.3%.

Within the cluster, the General Medical & Surgical Hospitals industry provides the most jobs, with almost 34,000 jobs in 2005; this was an increase of about 5,900 jobs, or just over 21%, from 2001-2005. Second, Offices of Physicians reported almost 20,300 jobs in 2005, and growth of 8.45% during the period. Third, Nursing Care Facilities reported 10,700 jobs in 2005; however, this industry lost almost 300 jobs, or 2.7%, from 2001 to 2005.

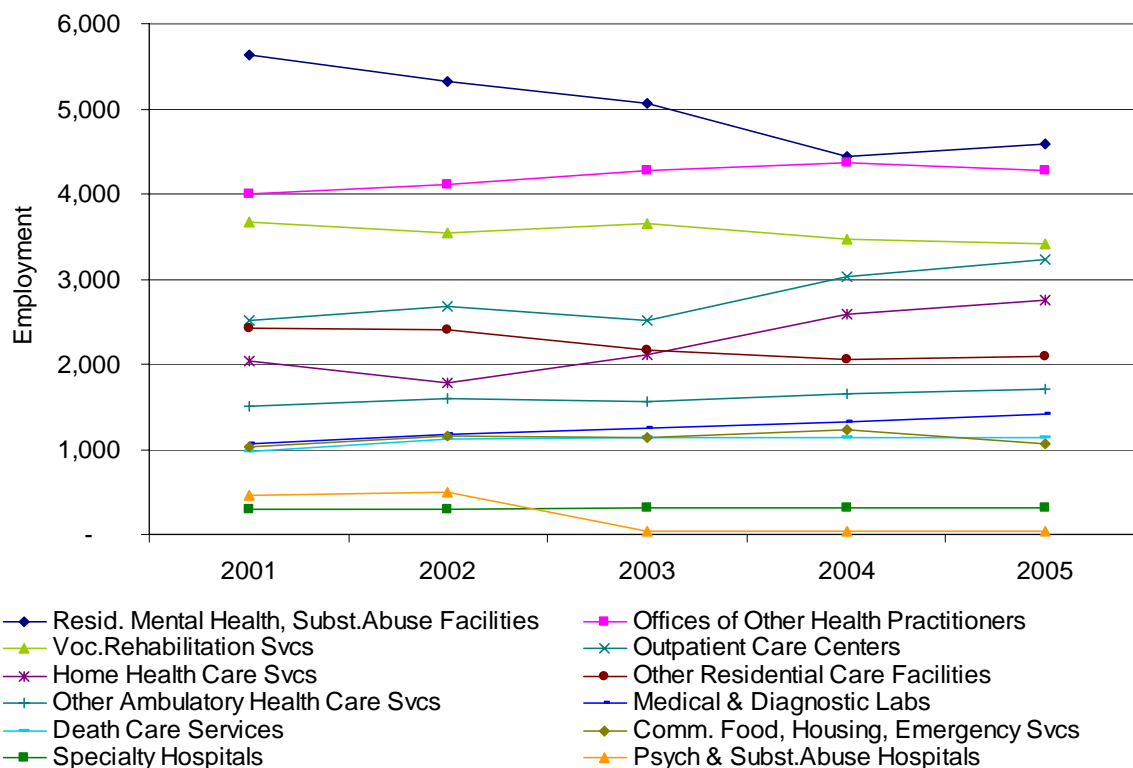
The greatest number of jobs lost was reported by Residential Mental Health & Substance Abuse Facilities, with a loss of almost 1,100 jobs from 2001 to 2005 (down 18.7%). The greatest percentage of job losses was reported by Psychiatric & Substance Abuse Hospitals, down 92.3% since 2001, a loss of over 400 jobs.

**Figure 65** shows the employment change from 2001 to 2005 for the five largest Health Services industries. **Figure 66** shows employment change for the remaining industries. Two charts were used in an effort to make the charts easier to read.

**Figure 65 Health Services Top Five Industries Employment 2001-2005**



**Figure 66 Health Services Remaining Industries Employment 2001-2005**



The region has a slightly higher concentration of Health Services jobs than found at the statewide level (1.1 LQ). Industries with a slightly higher concentration include Other Residential Care Facilities (1.3 LQ); Death Care Services (1.3 LQ); Nursing Care Facilities (1.2 LQ); and, Vocational Rehabilitation Services (1.2 LQ).

The average annual wage for Health Services was \$40,960 in 2005, up \$7,236 or 21% since 2001. Overall, Health Services jobs pay better than the regional average for all private industry of \$30,432. Within Health Services, the Offices of Physicians industry reported the highest average wage of \$58,105, while the Vocational Rehabilitation Services industry reported the lowest average wage of \$18,320.

**Figure 67** provides a summary of economic facts for the Health Services industries.

**Figure 67 Health Sciences & Services Cluster - Health Services**

NAICS	Industry	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 50 employees
6211	Offices of Physicians	20,300	8.4%	1.1	\$ 58,105	99.3%	97.5%
6212	Offices of Dentists	8,800	14.4%	1.0	\$ 37,422	99.9%	99.7%
6213	Offices of Other Health Practitioners	4,300	7.0%	0.9	\$ 28,588	99.9%	99.7%
6214	Outpatient Care Centers	3,200	28.5%	0.8	\$ 46,555	97.4%	94.2%
6215	Medical & Diagnostic Labs	1,400	32.2%	0.7	\$ 45,607	96.9%	95.3%
6216	Home Health Care Services	2,800	34.9%	0.7	\$ 26,654	96.0%	83.2%
6219	Other Ambulatory Health Care Svcs	1,700	13.1%	1.0	\$ 38,690	96.2%	83.0%
6221	Gen. Medical & Surgical Hospitals	34,000	21.1%	1.1	\$ 49,805	49.4%	42.9%
6222	Psych. & Subst. Abuse Hospitals	< 50	-92.3%	0.1	\$ 23,988	100.0%	100.0%
6223	Specialty Hospitals	300	11.9%	0.4	\$ 38,673	83.3%	66.7%
6231	Nursing Care Facilities	10,700	-2.7%	1.2	\$ 24,106	58.6%	27.3%
6232	Residential Mental Health & Substance Abuse Facilities	4,600	-18.7%	1.1	\$ 20,451	96.6%	93.3%
6233	Community Care Facilities for Elderly	5,400	26.0%	1.2	\$ 19,536	96.1%	87.0%
6239	Other Residential Care Facilities	2,100	-13.8%	1.3	\$ 21,226	99.3%	98.0%
6242	Community Food, Housing, Emergency & Other Relief Svcs	1,100	4.1%	0.9	\$ 22,880	98.6%	95.8%
6243	Vocational Rehabilitation Services	3,400	-7.0%	1.2	\$ 18,320	94.6%	90.5%
8122	Death Care Services	1,100	16.8%	1.3	\$ 26,933	100.0%	99.3%
	<b>Health Services Totals</b>	<b>105,200</b>	<b>10.3%</b>	<b>1.1</b>	<b>\$ 40,960</b>	<b>97.4%</b>	<b>94.7%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## ALL GOVERNMENT

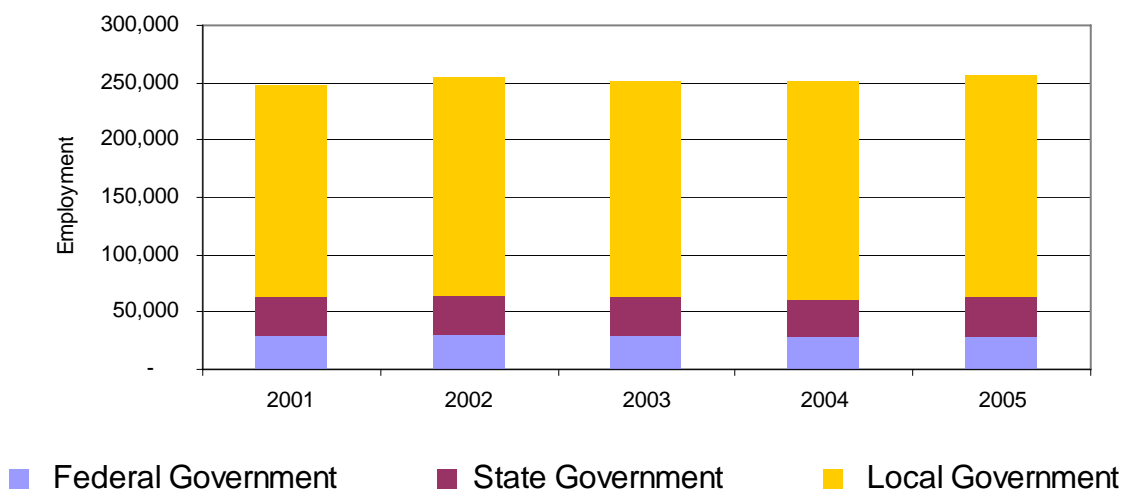
All Government includes federal, state and local government jobs. Jobs in public education are reported in the state and local government sectors. Government jobs also include defense (reported at the federal level), law enforcement, firefighting and public services.

All Government continues to provide the greatest number of jobs for the San Joaquin Valley Region. This industry provided 255,600 jobs for the region in 2005, almost 20% of all jobs. From 2001 to 2005, All Government grew by 8,100 jobs, or 3.3%. Local Government is the largest public sector, with 193,700 jobs in 2005; in contrast, State Government reported 34,300 jobs in 2005, and Federal Government reported 27,800 jobs.

During this period, Local Government (including education) added the most jobs, up 8,900 jobs or almost 5%; State Government added 1,200 jobs, up 3.6%; and Federal Government experienced job losses of 1,900 jobs, down 6.4%. **Figure 68** shows employment change for the federal, state and local public sectors.

One reason for the State and Local Government job growth from 2001 to 2005 may be the population growth during that same period of 10%, or 345,000 people, since State and Local Government includes education, law enforcement and firefighters, as well as other public services that may experience an increase in demand as the population increases.

**Figure 68 All Government Employment 2001-2005**



All Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The industry's average annual wage for the region in 2005 was \$42,491. Within All Government, the average annual wage for Federal Government was \$53,706; the average for State Government was \$44,738; and, the average annual wage for Local Government was \$40,519.

The region has a slightly higher concentration of All Government jobs (1.2 LQ) compared to the statewide level.

**Figure 69** shows employment for each level of government from 2001-2005.

**Figure 69 All Government**

	2001	2002	2003	2004	2005
<b>All Government</b>	<b>247,500</b>	<b>254,100</b>	<b>251,000</b>	<b>251,000</b>	<b>255,600</b>
<b>Federal Government</b>	<b>29,700</b>	<b>30,200</b>	<b>29,800</b>	<b>28,700</b>	<b>27,800</b>
Department of Defense	7,800	8,000	8,100	8,100	8,100
Other Federal Government	8,000	8,300	8,100	7,900	5,200
<b>State Government</b>	<b>33,100</b>	<b>33,800</b>	<b>33,300</b>	<b>33,100</b>	<b>34,300</b>
State Government Education	6,300	6,500	6,200	5,900	6,300
Other State Government	26,800	27,400	27,000	27,000	13,800
<b>Local Government</b>	<b>184,800</b>	<b>190,300</b>	<b>188,100</b>	<b>189,400</b>	<b>193,700</b>
Local Government Education	87,800	90,800	89,000	89,500	90,800
Other Local Government	54,300	56,400	56,500	55,000	56,800

Source: California Employment Development Department

Some government employment may be suppressed due to confidentiality requirements.



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## CONCLUSION

The San Joaquin Valley Region experienced population growth at a rate more than twice that of the state as a whole from 2001 to 2005. During this period, the region's population grew by 10%, while the state's population grew by 4.6%. Some of this growth was due to the attraction of affordable housing compared to the neighboring regions, like that seen in the northern-most part of the region, where workers have moved to the San Joaquin Valley Region and commute back to the neighboring Bay Area Region for work.

Job growth was also strong from 2001 to 2005, at over 7%. This was the second highest growth rate of the nine regions for this period, which began with the recession in 2001; however, the region's economic base job growth was less than 1%.

The region's future prosperity may depend, at least in part, on its ability to grow its economic base industries. Economic base industries bring revenues and jobs to the region that otherwise would not exist, because they sell most of their products and services outside of the region. Regional leadership should focus attention on growing, attracting and retaining such businesses, as a key to the region's future prosperity.

Local-serving industries, such as Retail Trade, Health Care and other industries that provide products and services for the surrounding population, will tend to grow as the population grows, in response to increasing demand. It will be important for policy-makers to ensure that these industries' needs are met, not only for the employment opportunities, but also so that the citizens will have access to necessary products and services for a good quality of life.

Many industries that are critical to the San Joaquin Valley Region's economy are undergoing transformations due to innovation and advances in technology. They strive to meet changing customer demands while remaining competitive. The changes taking place will require that job seekers and the existing workforce have new skills and knowledge.

Whether in the economic base, local-serving or transforming, all of these industries will need a healthy business climate that fosters innovation and encourages entrepreneurship and business development. This must include a prepared workforce, supported by strong educational systems and workforce training programs that collaborate and coordinate resources to meet these new challenges.

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